

**ADDENDUM B**  
**FACILITATOR GUIDE**



U.S. Department of Energy  
DOE/ID-10435

**5480.20 Training Seminar Series:**  
**"Table-Top Job Analysis"**  
**Facilitator Guide**

**March 1994**



## FOREWORD

The table-top process is a method of job analysis in which a team of subject-matter experts--job incumbents, engineers, supervisors, and other experts as applicable--and instructional technologists meets to identify the tasks performed in a specified job position. The task list serves as the basis for determining the content that should be included in the training program.

**This *Facilitator Guide* is for use by the Facilitator.** The Facilitator is usually an Instructional Technologist who will be responsible for teaching the lessons during the 1/2-day training portion of the seminar and for facilitating the actual TTJA process during the workshop portion. This *Facilitator Guide* will help the Facilitator conduct a successful TTJA seminar by providing an overview of TTJA, step-by-step directions, and easy-to-use checklists needed to prepare for, conduct, and conclude the TTJA seminar.

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## HOW TO USE THE FACILITATOR GUIDE

Thank you for serving as the "Facilitator" for the 3-day seminar titled "Table-Top Job Analysis" (TTJA). Your role is crucial to the success of the seminar, which in turn will promote the quality and usefulness of the seminar end product--a task list that will serve as the basis for training program content. Your participation as Facilitator will help the facility efficiently and cost-effectively meet the requirements of DOE Orders 5480.18A and/or 5480.20.

Your expertise in the Systematic Approach to Training (SAT) will help you efficiently perform your Facilitator responsibilities. Since you may

not be familiar with the TTJA method of job analysis, this *Facilitator Guide* gives you:

- information about the TTJA method,
- lesson plans that you will use to teach the TTJA team members about TTJA and how to participate in the seminar, and
- step-by-step directions and easy-to-use checklists that will help you prepare for, conduct, and conclude the TTJA seminar.

This guide is divided into five segments:

<u>Segment</u>	<u>Topic</u>
1	Overview of Facilitator's Role in Table-Top Job Analysis
2	How to Prepare for the Seminar
3	How to Conduct the Seminar
	Appendix A--Example format to document task content
	Appendix B--Example task list cover letter
	Appendix C--Example task list format
4	What to Do Following the Seminar
5	Facilitator's Checklist for Conducting TTJA



You will also use the three attachments:

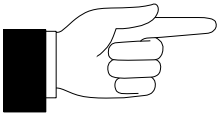
<u>Attachment</u>	<u>Title</u>
1	Lesson Plan: "Introduction"
2	Lesson Plan: "Overview of Table-Top Job Analysis"
3	Lesson Plan: "Maximizing Team Effectiveness"

These attachments will be explained in Segment 1.

## SYMBOLS

Symbols are used in this Guide to alert you to important activities or points.

When you see this symbol, we will be previewing what's coming up next.



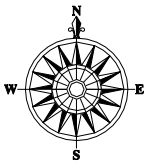
When you see this symbol, we'll recap previous information.



This symbol denotes a checkpoint where you will apply the information in the segment to your specific needs.



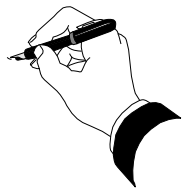
If you see this, read the directions.



This symbol means read the text.



This symbol means to write your response in the space provided.



## SEGMENT

# 1



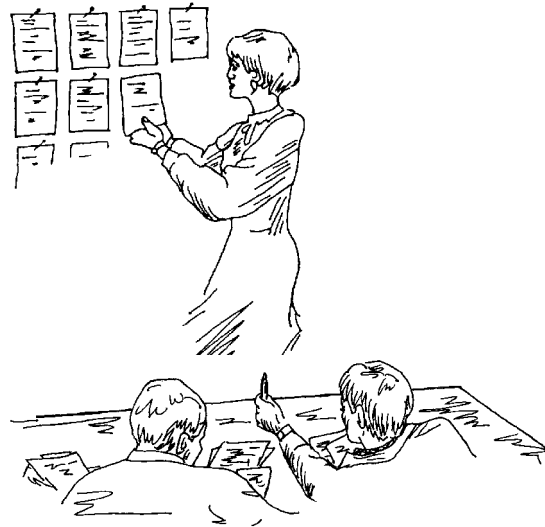
## OVERVIEW OF FACILITATOR'S ROLE IN TTJA

What is Table-Top Job Analysis? When is Table-Top Analysis the most appropriate job analysis method? What is the Facilitator's role? What qualities must the Facilitator possess?

### Directions

Read the information about TTJA and your role. After the segment you will be asked to apply this material to your needs.

### WHAT IS TABLE-TOP JOB ANALYSIS?



**Table-top job analysis** includes a team of subject matter experts (SMEs) and a supervisor that meets in a workshop to identify a list of tasks performed in a specific job and to determine which of those tasks should be included in the formal training program. A Facilitator guides the team through the process and writes and posts the task statements on a wall or other easy-to-see surface. The end product of the seminar will be a valid list of tasks selected for training for that one job position.

Each step is explained in detail in Segment 3

An agenda is shown on the next page



### Steps in TTJA Process

1. Orient team
2. Review job
3. Identify duty areas
4. Identify tasks
5. Sequence tasks and duty areas
6. Select tasks for training

The 3-day TTJA seminar will implement the six TTJA steps. The seminar is divided into two portions: a training portion and a workshop portion. During the 1/2-day training portion, you will use Attachments 1-3 to teach three lessons to the participants, explaining what they need to know in order to fulfill the terminal objective of the seminar. The training portion is TTJA Step 1--orient team to the TTJA

process. Then you will become the Facilitator for the workshop portion. During the workshop you will use Segment 5 as a job aid that helps you remember everything involved when performing TTJA Steps 2-6.

## WHEN IS TABLE-TOP ANALYSIS THE MOST APPROPRIATE JOB ANALYSIS METHOD?

TTJA, when used appropriately, has proven to be a more efficient, cost-effective, and accurate method for developing a task list than other analysis methods such as survey questionnaire or observation. It is also effective when used in combination with methods such as verification analysis (using another facility's task list as the basis for your own) and procedural review (reviewing procedures to identify tasks). (This 3-day seminar will use the combination of TTJA, verification analysis, and procedural review.)

### When is Table-Top Job Analysis appropriate?

1. When no task list exists for the given job position
2. When there is an existing task list but it is outdated and/or incomplete
3. When another facility's task list is available and, with modification, can be used as the basis for the facility's task list.

## **Agenda for Table-Top Job Analysis Seminar**

### Day 1

8:00 - 12:00	Step 1: Orient Team (training portion)
12:00 - 1:00	Lunch
1:00 - 5:00	Workshop
	Step 2: Review the job
	Step 3: Identify duty areas
	Step 4: Identify tasks

### Day 2

8:00 - 5:00	Workshop (cont'd)
	Step 4: Identify tasks (cont'd)

### Day 3

8:00 - 4:30	Workshop (cont'd)
	Step 5: Sequence tasks and duty areas
	Step 6: Select tasks for training
4:30 - 5:00	Seminar Summary

Although TTJA can be used to develop a task list for a new job position, in the DOE community most job positions and associated training programs have been in existence for many years. However, not all existing training programs are based on a valid task list.

TTJA can be used effectively to create a task list for existing job positions, thereby validating existing task lists or creating a task list in those cases when one does not exist.



Team  
Member's Role

Observer's Role

Who is the  
Coordinator for  
the 3-day TTJA  
Seminar?



Name Phone

## WHAT IS THE FACILITATOR'S ROLE IN TTJA?

As the Facilitator, you have the pivotal role in the TTJA process. You will be responsible for teaching the lessons during the 1/2-day training portion of the seminar and for facilitating the team members during the TTJA workshop portion. The team members are the SMEs (job incumbents and engineers) and supervisors who will use their technical expertise to identify the tasks involved in the job. As you help the team reach consensus on the tasks involved in the job, the Co-Facilitator will print each task on a separate sheet of paper and post it on the wall.

Members of the facility training staff may be in attendance for the entire 3-day seminar in order to learn how to conduct TTJA. During the training portion of the seminar, the training staff will be involved as participants and should sit at the same tables as the team members. During the workshop portion of the seminar, the training staff will observe your conduct from the back of the room as you guide team members through the TTJA steps. During TTJA Steps 4 and 6, they will have an opportunity to help facilitate the identification of tasks and selection of tasks for training (refer to Steps 4 and 6 in Segment 3). During all of the TTJA steps, the observers [especially the person(s) who will be developing the subsequent training program for this job] must pay close attention to the proceedings and take notes of any training-related discussions. These notes will be valuable during the design and development of the training program. You must be careful to serve as a role model for the training staff and make time available during lunches or evenings to answer any questions they may have.

Another key player in the TTJA process is the "Coordinator." The Coordinator is responsible for making the necessary pre-seminar arrangements including selecting and scheduling team members, gathering job-related information for your review prior to the seminar, and scheduling an appropriate meeting room. The Coordinator has been given a *Coordinator Guide*. You will need to work closely with the Coordinator as you prepare for the TTJA seminar.

Many people can assume the role of Coordinator, but few have all the necessary qualities to perform as the Facilitator. With input from management, the Coordinator chose you as the Facilitator. The choice was carefully made, based on the qualities required of a Facilitator.



## Facilitator's Role

### WHAT QUALITIES MUST THE FACILITATOR POSSESS?

Your role during the TTJA seminar is to serve as an instructor during the "training" portion and as a facilitator during the "workshop" portion. As an instructor, you must possess strong instructional skills in order to teach the lessons. As Facilitator, you will serve as a **process** expert who facilitates the sessions but does not provide technical input regarding the task list. Successful facilitation hinges on three factors: your interpersonal skills, your expertise in the entire SAT process, and your ability to perform special skills associated with facilitating table-top analysis. At a minimum, you should be extremely familiar with the job analysis processes, the difference between job analysis and task analysis, and possess excellent facilitation skills. Being FLEXIBLE and able to adjust to changing circumstances is CRUCIAL. Preferably, you are qualified to facilitate TTJA through training and practical experience.

#### Interpersonal Skills Needed by Facilitator

- FLEXIBILITY!!!
- the ability to establish and maintain enthusiasm -
- patience
- the ability to display and maintain a positive image
- a high degree of sensitivity to both verbal and nonverbal communication
- excellent memory
- a sensitivity to others
- a sense of humor
- the ability to make decisions
- excellent listening skills
- the ability to display warmth and establish rapport quickly with team members
- the ability to motivate, encourage, and focus team members

This *Facilitator Guide*, in combination with the attached lesson plans, can serve as a self-study to help you gain the knowledge needed for the special skills shown on the next page.

### Special Skills Required of TTJA Facilitators

- expertise in job analysis processes
- expertise in the table-top analysis method
- skill in Nominal Group Techniques
- skill in questioning techniques
- the ability to act as a process expert who leads and controls the process but allows team members to act as content experts who make content judgments and decisions
- skill in small-group dynamics
- skill in obtaining small-group consensus
- the ability to establish and maintain the team's pace, balance, and participation
- the ability to recognize vague statements and help the team select the most appropriate action verbs, task statement modifiers, and nouns



### Summary

1. The TTJA Facilitator guides the team of SMEs (job incumbents, engineers, etc.) and supervisors as they identify the tasks involved in a given job position. When the seminar is delivered by TCAP, the Facilitator will be from TCAP.
2. The Facilitator must prepare for and conduct the TTJA seminar by completing this Facilitator Guide, using the lesson plans, and following the TTJA Checklist. The Facilitator must work closely with the Coordinator who should follow the Coordinator Guide.
3. The 3-day seminar will result in a valid list of tasks selected for training. In addition, when TCAP delivers the seminar, it will also result in trained facility staff who can conduct future TTJA seminars.



### Checkpoint

*For what facility and job position will you be developing the task list?*



## SEGMENT

# 2



Spend adequate time preparing **every time** you facilitate this seminar

**READ** through the lesson plans once, now, to better comprehend the remainder of this Guide

### CAUTION

Suggested plan for team-teaching the lessons

## HOW TO PREPARE FOR THE SEMINAR

What do you need to do to prepare for the seminar? How should you use the lesson plans? What information will be available for you to review? What skills do you need to practice?

### Directions

Read the information about preparing for the seminar. **Use the Checklist (Segment 5) as your tool to ensure you have done everything required for adequate preparation.**

## USE THE LESSON PLANS

Attachments 1-3 are the lesson plans you will use during the training portion of "Orient Team" (TTJA Step 1). You **MUST** spend adequate time preparing to teach these lessons, especially to build in the examples described in the next section ("Review Available Information"). We suggest you read through the lesson plans once, now, to see the "big picture" of what you will be doing during the TTJA seminar. (This will also help you determine how much time it will take you to prepare for teaching the lessons.) The lesson plans provide detailed information on job analysis, TTJA, Nominal Group Technique, and consensus decision-making. Reading the lesson plans will help improve your comprehension of the remainder of this Facilitator Guide.

We suggest the lead and co-Facilitators team-teach the lessons so participants will be comfortable with both people. The table on the next page shows a suggested way of dividing the lessons among the two Facilitators. **CAUTION:** In order to do a good job of instructing and facilitating the workshop, both Facilitators must be intimately familiar with **everything** in each lesson plan and not just the sections they teach.

When teaching, follow the lesson plans because they have been carefully designed to help team members succeed during the workshop (making the workshop more efficient and pleasant, and resulting in a usable end product). The lessons will also help the observers understand how the task list should be used in the training program and what information they need to explain when conducting their own TTJA seminars.

<b>ATTACHMENT 1: INTRODUCTION LESSON</b>	
Both instructors	I. Welcome
Instructor 1	II. General Introduction A. Motivator B. Purpose of Seminar
Instructor 2	C. Seminar Objective D. Seminar Overview E. Participant Materials F. Roles
Both instructors	III. Icebreaker
Instructor 1	IV. Housekeeping V. Expectations
<b>ATTACHMENT 2: OVERVIEW LESSON</b>	
Instructor 1	I. Introduction II. Performance-Based Training
Instructor 2	III. Terms
Instructor 1	IV. Table-Top Job Analysis A. Step 1: Orient team B. Step 2: Review job C. Step 3: Identify duty areas
Instructor 2	D. Step 4: Identify tasks
Instructor 1	E. Step 5: Sequence duty areas and tasks F. Step 6: Select tasks for training V. Summary
<b>ATTACHMENT 3: TEAM EFFECTIVENESS LESSON</b>	
Instructor 1	I. Introduction II. Definitions
Instructor 2	III. Steps in the Process
Instructor 1	IV. Guidelines for Applying the Process V. Summary



Use the job information to familiarize yourself with the job and to **build examples into the "Overview" lesson** that are specific to the job that will be analyzed during the seminar.

## CAUTION

## REVIEW AVAILABLE INFORMATION

### **Obtain** from the Coordinator:

The Needs Analysis Worksheet  
(only applies to TCAP deliveries)

The TTJA Planning Sheet (from Coordinator Guide)

#### Job Information (if available)

- A brief job description
- A task list for the job or a similar job at the facility
- A task list for a similar job position at another facility -  
A list of procedures applicable to the job position
- Copies of 2-5 procedures that reflect the tasks involved in the job

Twenty to thirty days prior to the seminar, the Coordinator should send you planning information and available job information.

You should use the job information in two ways. First, familiarize yourself with the job and form an idea of the types of task statements that will arise from the TTJA. Second, create a possible list of duty areas and task statements for the job and, as you prepare to teach, build them into the "Overview" lesson as examples.

**NOTE:** Building job-specific examples of "well-written" vs. "poorly-written" task statements and job-specific examples illustrating the concept of task "levels" has proven to be crucial

in helping team members understand these concepts. Make sure you take the time to create these examples using the information the Coordinator sends you.

During TTJA Step 4, the Coordinator will have in the meeting room **all** available job information (standard operating procedures, system descriptions, process and instrument diagrams, and other materials relevant to the job position) so team members can refer to it when identifying the duty areas and tasks. During Step 4, team members will also compare their task list with the list you develop and, if available, with a task list from another facility. (This will be explained further in Segment 3 when discussing TTJA Steps 3 and 4).

**CAUTION:** You should use this information only to become familiar with the job and to build examples into the "Overview" lesson. You **SHOULD NOT** use this information to contribute to the task list when



Refer to the  
"Maximizing Team  
Effectiveness" lesson  
for additional  
information

conducting TTJA. You can use this information to lead team members into thinking of a task, but DO NOT offer suggestions of a task. Remember, your role is as a process expert...the team members must act as the content experts.

## STUDY NOMINAL GROUP TECHNIQUE AND CONSENSUS DECISION-MAKING PROCESSES

The team will use various techniques to identify the tasks involved in the job. The team will have access to available job information to identify the duty areas and tasks, but a certain amount of discussion and consensus decision-making will also be required to help the team think of additional tasks. Study the Nominal Group Technique (NGT) and Consensus Decision-Making (CDM) techniques described in the "Maximizing Team Effectiveness" lesson so you can effectively apply the techniques throughout the workshop portion of the seminar.

What the "Maximizing" lesson does not describe is your role during these processes. You must use verbal and non-verbal communication skills to effectively implement the NGT and CDM techniques.

During Nominal Group Technique and Consensus Decision-Making processes, the Facilitator should:

- Encourage each team member to contribute
- Listen actively to all contributions
- Control participants who try to dominate
- Verbalize contributions to ensure accuracy and clarity
- Provide frequent positive reinforcement
- Repress own biases and opinions
- Probe and encourage with questions
- Set and maintain an enthusiastic climate



## CONFIRM DETAILS WITH COORDINATOR

### Prior to Seminar:

Which job position is being analyzed? Make sure the Coordinator realizes only 1 job position is typically analyzed at a time. A common mistake is that the Coordinator will arrange to analyze a "crafts" job position, for example, and will invite 1 electrician, 1 pipefitter, and 1 mechanic to participate on the same TTJA team. This does not work well because these are three separate job positions. Rather, the Coordinator should schedule 3 electricians to do a TTJA seminar for the "electrician" job position. Sometimes, though, it is possible to analyze two job positions simultaneously. This would require two separate teams and 3 Facilitators, but they would share the same meeting room. (This works well if the "second" team's job position is not likely to have many tasks.)

What to bring to the seminar? Refer to Segment 3, Step 1, which describes the accelerated learning techniques that you should apply during the seminar. Check with the Coordinator to see if healthful refreshments will be provided or whether you will have to supply them. Also check to see if you will be allowed to bring a music system so you can play selected music to enhance the learning environment.

Since you will need to type the task list and cover letter during the seminar, you will need access to a computer and printer. If you have your own portable equipment, check with the Coordinator to see if you are allowed to bring these into the meeting room. Otherwise, discuss your needs with the Coordinator to make sure the Coordinator makes adequate arrangements. (A disk with the standard task list and cover letter format is provided in the pocket of this Guide.)

Who is providing supplies? Five to ten days prior to the seminar, you should confirm with the Coordinator who is responsible for gathering and taking all supplies to the seminar. The Facilitator usually brings the supplies, participant manuals, and instructional materials. The Coordinator is usually responsible for having "equipment" and "other" supplies available in the meeting room. Coordinate these arrangements with the Coordinator.

Do you need to bring refreshments the first day?

Bring music and the music player

Coordinate your computing needs

Who?



Refer to the  
"Introduction" lesson  
for additional  
information

#### Supply List (Facilitator will provide)

3 pkg	Plasti-Tac non-marking putty for hanging pages on wall
2 reams	8-1/2" x 11" white paper (unlined)
1 ream	8-1/2" x 11" yellow paper (unlined)
1 pkg	looseleaf notebook paper
10	6" x 4" post-it note pads (unlined)
10	1-1/2" x 2" post-it note pad (unlined)
15	black or blue ink pens
15	yellow highlighters
15	pencils
3 boxes	flipchart markers with permanent, non-bleed through ink in a variety of dark/bright colors (not orange or yellow)
1 set	transparency markers
1 box	whiteboard markers
1	pointer
1 box	push pins or thumb tacks
1	stapler with staples
1 roll	duct tape
2 rolls	masking tape
1 roll (w/dispenser)	scotch tape
2 rolls (w/dispenser)	post-it tape

#### Participant Materials (Facilitator will provide)

15	name placards
15	Participant Manual (enough for all attendees, including observers)
1 set	Seminar materials for each observer (Coordinator Guide, Facilitator Guide with lesson plans)

#### Instructional Materials (Facilitator will provide)

Posters  
Videotape  
Distributed handouts  
Overhead transparencies

#### Equipment List (Coordinator must provide in meeting room)

1	VCR (VHS) with monitor or tv
1	overhead projector
1	overhead projector screen
2	flipchart stands
4 pads	flipchart paper
1	calculator
1	computer and printer (coordinate with Facilitator)

#### Other (Coordinator must provide in meeting room)

3 copies	available job information (job-related procedures, system descriptions, process and instrument diagrams, and other materials relevant to the job position)
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## Day Before Seminar:

What to say during Introductions? The Introduction lesson begins with a series of short (1 min. each) introductions:

- The Coordinator introduces a manager from the operating organization that needs the task list
- The Coordinator introduces you as the Instructor/Facilitator for this seminar
- You introduce yourself

We recommend that you confirm the introductions with the Coordinator and prepare a very brief biography of your qualifications and experience for the Coordinator's use when introducing you.



## Summary

1. Read the attached lesson plans NOW to help you plan your preparation time and comprehend this Facilitator Guide.
2. Spend adequate time to become completely familiar with the lesson plans so you can teach well and serve as a role model.
3. Review available job information to familiarize yourself with the job and incorporate the information as examples in the "Overview" lesson. DO NOT use it as a way to contribute technical input to the task list; this must be done by team members.
4. Fine-tune your Nominal Group Technique and Consensus Decision-Making skills.
5. Confirm all details with the Coordinator.



## Checkpoint

1. *What are the dates for the 3-day seminar?*



2. *When will the Coordinator be sending you the job information?*



3. *What is the status of refreshments, music, computers, printers, and supplies?*



## SEGMENT

# 3



Use Segment 5 as your job aid when actually performing the steps



Briefly review the "big picture" each morning

## HOW TO CONDUCT THE SEMINAR

How should you perform each step of the TTJA process?

### Directions

Read the information about the TTJA steps. The Facilitator and Co-Facilitator are very active throughout the entire seminar and must effectively work together, sometimes switching roles from "lead" to "co" Facilitator. *The italic print throughout this segment will denote the activities of the Co-Facilitator.* Segment 5, the Facilitator Checklist for Conducting TTJA, summarizes the key information you should convey and actions you should take as you conduct the TTJA workshop. Use this segment as your self-study to learn each step.

## STEP 1 - ORIENT THE TEAM

### Teach Lessons

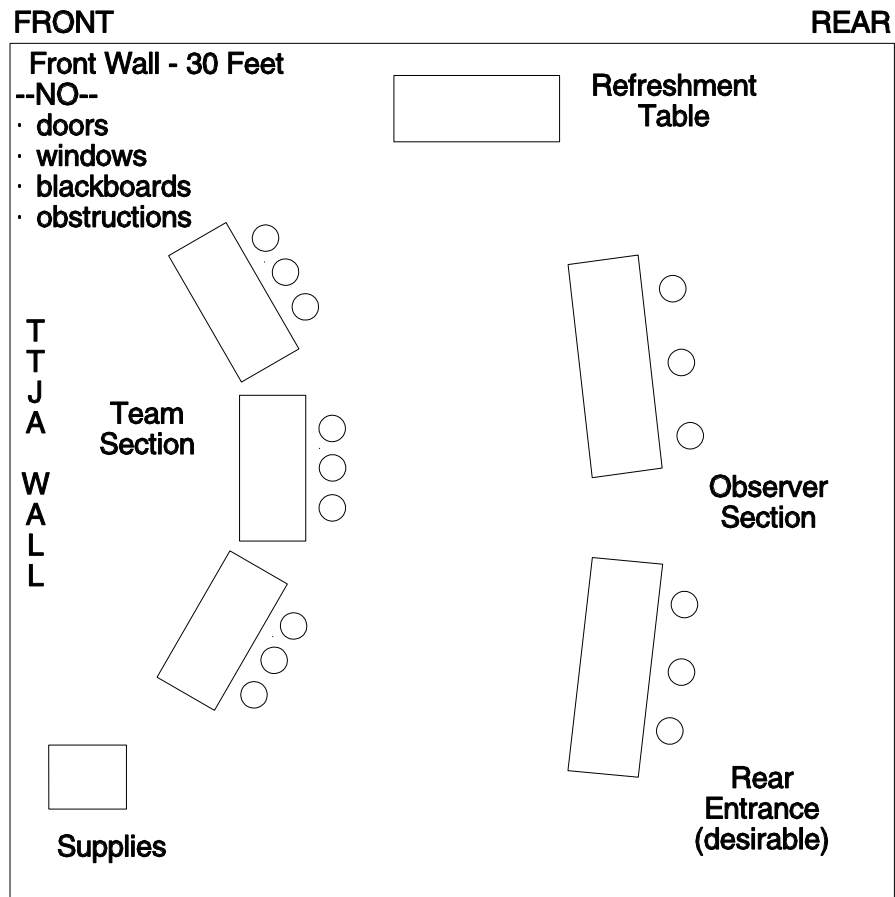
The orientation step is one of the most important steps of the process. The orientation must be well done to help participants be able to apply the terms and concepts in the TTJA process. The lessons provided in Attachments 1-3 are carefully designed to fulfill the requirements of a "well-done" orientation. By teaching those lessons, you have completed this step. Each morning, it is good idea for you to briefly review the "big picture" in terms of where you are in the TTJA process and how the results (the task list) will be used after the seminar.

### Prepare for Workshop

#### *Arrange Room*

When you have finished teaching the lessons, you will need to take a break to set up the room for the workshop. The picture on the next page shows a standard room set-up when analyzing one job position.

If you are conducting analyses for two different job positions simultaneously, the room would need to be much larger. In that case, you would still set up the room as shown in the picture, but you would



also put the "second" team members at tables in the back of the room, with their own supply table. Rather than using 8-1/2" x 11" sheets of paper during TTJA Steps 2-5, this second team would use 3" x 5" post-it note pads to write their duty area and task statements. A third Co-Facilitator would work with the second team. The intent would be for the "second" team to listen and watch the lead Facilitator as the lead Facilitator explains to the "primary" team how to do each step. Then, both teams would perform the step simultaneously.

### *Set-up Supply Table*

A supply table should be placed at the front of the room, in a place convenient for the Co-Facilitator to hang pages on the wall and easily see the flipcharts that will be used during Steps 3 and 4. To the extent possible, the table should not interfere with the participant's ability to see

Have observers follow along with seminar materials as they observe the TTJA process from the back of the room

**Organize the following supplies on the supply table:**

- 50 shts 8-1/2"x11" yellow paper
- 1000 shts 8-1/2"x11" white paper
- wide-tipped, permanent markers that do not bleed through paper (in a variety of colors)
- 1 pkg non-marking putty
- 1 box push pins or thumb tacks
- 1 roll of post-it tape
- 2 pencils (with erasers)
- 2 ink pens
- the computer

the pages once they are hung on the wall. (You may have to move the table from one side of the room to the other once the wall starts filling up with pages.) The best location for the supply table is usually the front corner near a power outlet (because the Co-Facilitator will need to use the computer).

Organize the supply table so the Co-Facilitator will have writing space and easy access to the

materials needed for writing and posting the duty areas and task statements on the wall.

*Talk with Observers*

Remember that during the lessons, Observers are allowed to participate and sit at tables with the team members. When moving into the workshop portion of the seminar, discreetly remind the Observers to sit at separate tables in the back of the room. Give them copies of all seminar materials (*Coordinator Guide* and *Facilitator Guide* with lesson plans). Suggest that they follow along with the *Facilitator Guide* and Facilitator Checklist as you conduct each TTJA step. Make sure they realize that they will help facilitate during Steps 4 and 6, so they will need to read the *Facilitator Guide* by that time. Remind them to take notes of discussions that will have impact on the design and development of the training program. Explain that if they have questions about any of the steps during the TTJA workshop, they may ask you during breaks or after the sessions.

*Check the Wall Surface*

Hundreds of pages of 8-1/2" x 11" paper will be hung on the walls and moved around during the TTJA workshop. Therefore, it is important to identify which materials will be most appropriate for preparing the page so you can hang it on the wall. "Preparing" the page depends on the wall surface. The overriding principle is to not damage the wall during

the workshop. The materials used to hang the pages have to preserve the integrity of the wall. For example, if the wall is a hard wall with paint, apply non-marking putty to the back of the page. If tape will not harm the wall, apply a piece of tape to the top of the page. If the wall has a cork-board or other cloth-covered surface, perhaps push-pins or staples would work best. Have whatever materials are most appropriate available on the supply table.

Once the room is set up and everybody is seated correctly, you are ready to begin the workshop portion of the seminar. Throughout the workshop, apply accelerated learning techniques.

### *Apply Accelerated Learning Techniques*

This seminar provides an excellent opportunity to apply some accelerated learning techniques. It is crucial for the Facilitator to set a pleasant, relaxed, productive environment in which participants feel refreshed and open to express their ideas. The following techniques can help promote that kind of environment.

Bring a fun toy and/or noisemaker for each participant's use during the seminar (they will return them to you after the seminar). The toys provide a way for participants to break the stress when they start feeling burned out or to light-heartedly help keep someone "on track." Koosh® balls and light-weight small Nerf® balls are good for tossing around during breaks. Noisemakers are good for when someone makes a really good (or really bad) suggestion. Encourage participants to pick and choose their toy/noisemaker and to trade them for others as the seminar progresses. NOTE: For health reasons, do NOT use noisemakers that require someone to blow on/through them. Also, use good taste and ensure a gender-safe training environment when selecting toys and noisemakers (e.g., you would not want to bring a noisemaker that says profane things when the buttons are pushed.)

Music can greatly enhance the environment. CD players and CDs are allowed in most DOE facilities (whereas tapes and tape recorders are not). Bring a selection of light jazz (with little or no singing) to play during breaks (Kenny G, Earl Klugh, Richard Elliott). You can also ask the participants to bring in their "favorites" to play during breaks, but use discretion so other participants are not offended by the music. The

Bring a toy or  
noisemaker for each  
participant



Bring music for  
breaks and "quiet  
thinking" time



music played during breaks should be at "conversation level" in terms of loudness. Bring a selection of soothing Baroque music (no vocals) to play during quiet moments, such as during the exercises in the lessons or as participants are doing Nominal Group Technique during the workshop. (Example: Bach's "Air on the G String.") This music should be loud enough to be barely audible from the back of the room. Of course, if any participant comments that the music is distracting, either turn it down or do not play it.

A 10-minute break should be taken each hour. You may want to take one extended break (20-30 minutes) in the afternoon if the participants get burned out (this is common during Step 4). Sometimes giving them a little extra time so they can go outside and take a short walk can greatly increase their productivity when they return.

Bring healthful refreshments



Having the right kind of refreshments can also help maintain the stamina of the participants. Healthful refreshments such as fruit, vegetables, crackers, and juice will **maintain** a high energy level, whereas "junk foods" will cause people to experience sugar highs and lows. The Coordinator should have arranged for healthful refreshments to be available. If not, suggest that everyone bring an item to share with the entire group.

Use colors effectively throughout the room



Making the room look "more pleasant" can also enhance the environment. Rather than writing all the task pages (Step 4) using a plain black marker, try writing the pages for one entire duty area in one color (e.g., blue), all the tasks for the next duty area in another color (e.g., green), etc. The net effect will be a "rainbow" as the pages are added to the wall. NOTE: Do NOT write each page in a duty area in a different color or this would be too distracting.

Be creative and have fun making the environment as pleasant and productive as possible!



## STEP 2 - REVIEW JOB

Begin the workshop portion of the seminar by re-stating which job the operating organization needs to have analyzed. The major purpose of this discussion is to clarify job titles and specializations that will be included or excluded from the analysis. For example, if you are

Make sure everyone understands exactly which job position is being analyzed

analyzing the job of "Health Physics Technicians" (HP Techs), will you be including all tasks for all HP Techs (those who work in Dosimetry, Analytical Services, and Area Monitoring), or just the "Area Monitoring HP Techs"? If you are analyzing the job of "Tank Farm Operators," will you be including all tasks for all Tank Farm Operators (including those who work in the Evaporators, Saltwells, and other site areas), or just the "Saltwell Tank Farm Operators"? If you are analyzing the job of "Waste Management Technicians," will you be including both "Radiological" and "Hazardous" Waste Management Technicians? If you are analyzing the job of "Reactor Operators," will you be including tasks for Auxiliary Operators, Reactor Operators, Senior Reactor Operators and Supervisors? This step is crucial to clearly establish the parameters of the job to be analyzed.

*Co-Facilitator: Once the job position has been clarified, write the job title (horizontally) on a white 8-1/2" x 11" page and post it at the top, center of the TTJA wall.*



### STEP 3 - IDENTIFY DUTY AREAS

The next step is to have team members determine the duty areas of the job under which all specific tasks will fit. A duty area is a distinct major activity (group of related tasks) involved in performing the job.

First the team needs to determine how they will select duty areas, as explained in the "Overview" lesson. Depending on the type of job being analyzed, would it be better to identify duty areas based on systems? Or components? By location? Or by procedures? A combination? Something else? Refer team members to the task lists located in the "Workshop" portion of the Participant Manual to see examples of how duty areas were chosen for previously-analyzed jobs.

As Facilitator, be aware of the fact that how duty areas are chosen may have an impact on the ability to write task statements at an appropriate level. For example, during an analysis of "Distribution and Inspection Utility Operators," duty areas were chosen based on systems. When writing tasks, the team realized that they would have to write the same task statement numerous times within that duty area to indicate the different buildings in which that system exists. This significantly increased the number of tasks listed on the task list, almost to the point

Determine how to group duty areas

of it becoming unmanageable. In this case, it would have been better to select duty areas based on "building."

It may be difficult to determine the best way to select duty areas in advance. Once the team starts identifying tasks, if it seems there may be a problem like the one explained above, suggest that the team identify duty areas in a different way. (Note: When you are preparing for the seminar, if you use the information the Coordinator sends you in advance to identify possible duty areas and task statements, you may be able to avoid this potential problem.) **CAUTION:** Do not "scare" the participants by explaining this potential problem. Just let them know, in a positive tone, that the team can always revise the duty areas, if needed, later in the process.

Be aware that when the team begins this step, the members may be unsure of themselves and need considerable guidance. For example, the team may have difficulty distinguishing between task statements and duty areas. Remind the team of the definition of duty area and that there are typically five to twelve duty areas involved in most DOE occupations. Each duty area can generally be broken down into 15-20 task statements.

**Technique:** To begin identifying the duty areas, use the Nominal Group Technique by asking the team members to privately generate and write down their ideas for what duty areas are involved in the job. Provide several minutes of quiet thinking time. Then, in a round robin style, ask each person to state one of the duty areas they wrote. (A round robin involves each person taking a turn to state one suggestion from his/her list; the next person states one suggestion, and so on until all persons have made one suggestion; then the first person states a second suggestion from his/her list, etc.) Record their answers on the flipchart, alternating with two different-colored markers. If a duty area has been suggested, the next person should state another duty area or "pass" to the next person. Remind team members that if someone else's suggestion stimulates another thought, they are welcome to add to their list. Continue the round robin until all team members have had an opportunity to exhaust their list. Initially, it is important for you to record their ideas on the flipchart, even though you are aware that revisions may occur.

Provide plenty of guidance and reassurance

Use NGT to identify duty areas

During round robin, record answers on flipchart

Briefly combine or modify duty areas if needed

Use the "circles and color-coding" technique to track which items were "folded" into the chosen statement

Follow these guidelines when writing the duty area pages

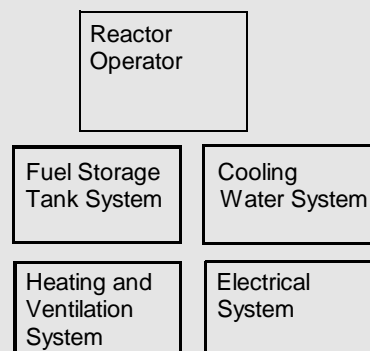
Post the duty area statements in two vertical columns down the center of the TTJA wall

Once all ideas have been written on the flipchart, read each duty area aloud. Restate that any duty area that cannot be subdivided into six or more specific tasks should not remain as a separate duty area. Similarly, a single duty area should not be so broadly stated that it might contain an excessive number of tasks (more than 20). Remind the team to ensure tasks performed under emergency/abnormal situations will be encompassed under the duty areas they select. Use the consensus decision-making techniques to ask the team if they would like to discuss, clarify, or explain any of the answers. The team should identify any answers they feel can be combined or eliminated because of duplication.

**Technique:** As the team comes to consensus on what to keep as duty area statements and what to delete, **CIRCLE** the duty area statement and, with the **same** color marker, **CROSS THROUGH** the items that were deleted because of the circled item. For the next statement they choose to keep as a duty area, circle it with a **DIFFERENT COLOR** marker and cross through the applicable items with that **SAME** marker. This way, in the end, it will show a clear link of where each suggestion was "folded into" the final choices. [If you run out of different marker colors, try drawing "clouds" around the final choice (rather than a circle) and then drawing a squiggly line through the crossed out items (rather than a straight line).] It will be even more important to use this technique during Step 4, because that input will be valuable during the "design" phase of SAT when determining training program content.

*Co-Facilitator: As the team reaches consensus on each duty area, print each duty area statement (the "circled" items) horizontally on a separate piece of yellow 8-1/2" x 11" paper. Use a wide-tip, black, permanent marker that does not bleed through the paper. Write legibly and make the letters at least 1" tall so all team members can easily read the page once it is posted on the wall. After writing a duty area on a page, prepare the page so it can hang it on the wall, using the guidelines described in*

Write each duty area horizontally on a yellow 8-1/2" x 11" page and post the pages in two vertical columns down the center of the wall







As needed, refer team members to the job aids showing criteria for tasks and criteria for task statements

Team members should attempt to apply these criteria as they silently generate their task lists during the Nominal Group Technique.

You must help the team further apply the criteria as you obtain group consensus on each task statement.

*Step 1 of this segment. Hang the duty area pages in two vertical columns down the center of the wall. Note: Wall space will be at a premium, so place the pages very close together, but do not tape them together.*

Do not belabor the revision process at this point. Let the team know they will be able to make further changes later in the process, if needed.

## STEP 4 - IDENTIFY TASKS

### Review Information with the Team

Since this step will require the most effort, you can increase the team's efficiency in identifying all of the tasks within each duty area by reminding the team members of some key points regarding tasks and task statements.

First, review the criteria for a task and criteria for a well-written task statement. These are provided in the "Workshop" section of the Participant Manual as a job aid for team members to use as they identify tasks during this step. They are also shown here for your convenience.

#### Criteria for Task:

- Is a trainable chunk of work
- Has identifiable beginning and end
- Involves several elements
- Results in an identifiable product, service, or decision
- Can be performed over a short period of time
- Can be performed independent of other work
- Can be observed and measured

### Criteria for Task Statements:

- Contains an action verb and object of the action
- Clearly reflects observable worker performance
- May contain one or more relevant qualifiers, but omit unnecessary qualifiers such as effectively, efficiently, correctly, accurately
- Is explicit, precise, and stands alone
- Avoids reference to knowledge, skills, attitudes, or abilities that merely support task performance
- Avoids reference to tools or equipment that merely support task performance. The use of tools in and of themselves is not a task, but a means of performing the task.
- Reflects terminology used on the job
- Avoids use of double verbs such as "remove and repair." Use the more inclusive of the two, which is "repair."
- Should contain as few words as possible (usually a maximum of eight) while being completely descriptive. Often, two or three words are sufficient

To obtain a task statement, ask questions such as:

- What tasks are associated with this duty area?
- If you were the boss, you would give direction to a worker by saying, "We need you to \_\_\_\_\_" (task statement)
- What requests for your services would customers have?

Emphasize the need for task statements that clearly reflect observable worker performance rather than elements of a task or the knowledge, skills or attitudes involved in performing the task.

If participants suggest a statement that is an element or a knowledge or skill (rather than a task), respond by asking:

- Why does the worker need to do that?
- Why does the worker need to know that?
- What does the worker do with that knowledge?
- Is this a trainable event?

Review acceptable  
action verbs

These questions usually encourage the contributor or another team member to respond by saying "If the worker doesn't know theory X, he or she can't \_\_\_\_\_. " This should suggest an observable task statement.

Second, remind the team that each task statement must contain an observable, measurable action verb. Have the team use the list of action verbs (provided in the Workshop section of their Participant Manual) as a job aid to choose the most appropriate action verb. Unacceptable statements are any that begin as follows:

- The worker should know . . .
- The worker must understand . . .
- The worker has to appreciate . . .

Determine the level  
at which to write  
tasks

Third, remind the team of the most appropriate level at which to write the tasks. The level will depend on (a) the scope of the job being analyzed, (b) the complexity of the facility, and (c) how the team chose to group duty areas. The overriding principle is that the tasks must be useful for further SAT processes and the total number of tasks must be manageable. Because of your preparation prior to the seminar, you should have determined the most appropriate task level and guided team members to agreement on the level during the "Overview" lesson.

A concern often arises over the specification of tasks related to the tools and equipment of the trade. Generally tools or equipment operation should be included as task statements only when they reflect actual occupational tasks. Instruct the team to think about whether the tool is used as a means to an end. For example, an auto mechanic may use several tools when performing the task of "adjust a carburetor." The mechanic's use of a screwdriver and other wrenches in the process do not represent tasks by themselves.

Similarly, the verb "operate" is not normally used correctly. Using the verb "operate" in a task statement can lead to tasks being written at too low a level or at too high a level. For example, "operate a forklift" is typically at too low a level. The *purpose* for operating the forklift (e.g., "pick up pathological waste" or "store hazardous waste") would be the actual task, with "operate the forklift" being one step involved in

performing that task. "Operate the primary coolant system" may be at too high a level, especially in a complex facility, because each step involved in operating that system (e.g., "start-up the system," "maintain the system in steady-state," "shut-down the system," etc.) would themselves be so complex that they should be considered the tasks. Perhaps in a smaller facility with few components involved in the system the task "operate the xyz system" would be written at an appropriate level. Typically, "operate" is not a good verb to use in a task statement unless it is an actual occupational task (e.g., a warehouse worker whose job does not involve many tasks might have the task "operate a forklift").

You must be an expert at writing good task statements and recognizing the appropriate task "level" in order to guide the team. You must help them apply the criteria for tasks and criteria for task statements.

### **Have Team Members Identify the Tasks**

To identify the tasks performed within each duty area, employ a combination of Nominal Group Technique (NGT), procedural review, and verification analysis. We suggest the use of pure NGT (brainstorming without referring to existing materials) to begin with, until the team establishes a consistent level at which to write task statements. (Otherwise, since most procedures and other documents are written at inconsistent levels, the team may become confused and frustrated.) Once the team feels comfortable with identifying tasks at a consistent level, allow them to use the available job information--procedures, existing task lists, and other materials relevant to the job position--AS they do their NGT to identify the tasks involved in the job. The order in which you use these processes (brainstorming followed by procedural review or vice-versa) is left to your discretion as the Facilitator. Because you will have reviewed the available job information prior to the seminar, you will know which method(s) will be most efficient and result in the most accurate task list.

The first duty area in which you focus attention should be an area wherein the tasks are fairly easy to delineate. Use NGT to have team members identify the tasks within this duty area.

Using Nominal Group Technique and consensus decision-making techniques, have team members identify the tasks by:

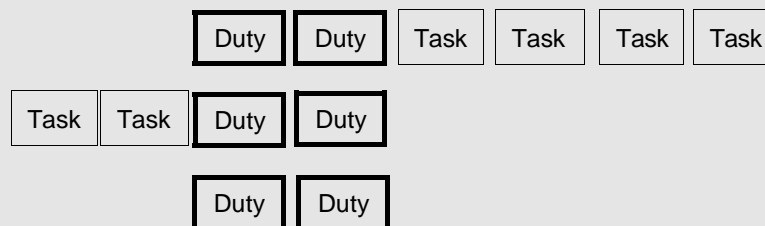
- brainstorming
- looking at the procedures
- verification analysis (using an existing task list)

Start with a duty area in which the tasks will be easy to identify

Focus on identifying tasks for one duty area at a time; do not sequence tasks at this time

**Technique:** As you conduct the round robin to obtain their input, write their task statements on the flipchart, alternating with two different color markers. Use the "color-coded circles and cross-throughs" technique (refer to Step 3) as you gain consensus on which suggestions are the actual task statements and which information should be crossed off because of each task statement. Also, **MAKE SURE** the task statement reflects the duty area. For example, suppose there are duty areas such as "hazardous waste handling," "radiological waste handling," and "industrial waste." Within each of these duty areas there may be the task of "pick up waste." To reflect the duty area, the task statements should say "pick up *hazardous* waste" and "pick up *radiological* waste" rather than having two pages saying "pick up waste." This is important because later in the process (both in the TTJA seminar and subsequent SAT processes), when the task pages get separated from the duty area pages, the intent of the task statement needs to be very clear.

As you obtain group consensus on task statements, write each task statement horizontally on a white sheet of 8-1/2" x 11" paper. Use the same guidelines for the size of letters as described for duty areas. Use one color marker to write each task page in one row, but use a different color marker for each row. Post the pages next to the applicable duty area, horizontally across the wall.



*Co-Facilitator: As the team reaches consensus on a task (indicated by the "circled" items on the flipchart), write each task statement on a separate page and post it on the wall. Also, begin typing the "task content" document (refer to Segment 3, Appendix A, for example). This document shows each task and its associated "folded-in" items (as indicated by the color-coded crossed-out items on the flipchart). This information serves as some of the task content information that will be very useful during the design phase of SAT, so you need to document it accurately.*

Take breaks between duty areas

Once the members have identified all of the tasks for the first duty area, determine if the team is ready to move to another. Breaks should be taken between the identification of tasks for a duty area. (Do not take a break while listing tasks for a duty area.) Guide the team in selecting the next duty area to analyze, which should have similar tasks to the one that was just completed. It is easy for the team to bog down if it switches from procedural tasks to analytical or problem-solving tasks.

Allow observers to practice facilitating

After you have demonstrated this process for the first two duty areas, have the observers take turns facilitating the identification of tasks for the remaining duty areas. Provide non-threatening critique and guidance as necessary.

Continue this process until the group has delineated the tasks for all duty areas. Because this stage of the TTJA process is the most time consuming, it can tax everyone's endurance, patience, and adherence to the process. As long as you remain highly motivated and dedicated to the process, the team is likely to remain so, as well.

#### CAUTION:

#### CAUTION

If the team members feel that a task is completed by their occupation, you must include it on the wall. You must agree with all decisions that are reached consensually. The team members are the experts, and it is they who must discuss, debate, and occasionally even argue about what is really important to their jobs. In all decisions regarding the tasks involved in the job, the team members must be given the authority to decide.

The skill of the team members to identify task statements accurately and precisely should improve as they advance from duty area to duty area. Repeat the statement as it is worded and ask the team members the following:

### Review Task Statements

- Critique the action verb. Is it the most accurate descriptor of what the worker actually does?
- Review the object. Does it represent the thing or person acted upon by the worker?
- Check the modifiers or qualifiers, if any. Are the correct ones used? Are others needed? Have unnecessary modifiers, such as "effectively" and "efficiently," been eliminated?

Use as few words as possible

Constantly challenge the team to think of the most accurate and descriptive terms. It is important to insist on precision. Remind team members that a task statement should contain as few words as possible (usually a maximum of eight) and still be completely descriptive. Often, two or three words are sufficient.

Conduct verification analysis

Once the team feels comfortable with their task list, have them compare their task list with the one you developed when reviewing the available job information prior to the seminar. Also have them compare their list with any other task lists for similar jobs at other facilities. The purpose is to have the team determine whether they have omitted any tasks. If so, add them to their list.

Document the verification analysis

*Co-Facilitator: In the "cover letter" (refer to Segment 3, Appendix B, for example) that will precede the typed task list, document which (if any) task lists were used for verification analysis.*

After all tasks have been identified, re-examine the duty areas. Each duty area should contain at least six specific task statements. If the group can specify only two or three tasks, the duty area should probably be combined with another related area. Conversely, if a particular duty area results in a large number of tasks (e.g., more than twenty), there may be justification for dividing that large area into two duty areas.

Re-examine the duty area statements

Once the tasks in each duty area have been refined, ask the team if the duty area statement is still an accurate descriptor to encompass the tasks performed. Sometimes the scope of the duty areas should be narrowed or broadened to reflect the specific tasks more accurately. To the extent possible, each duty area should include all the tasks within the area and exclude all the tasks specified for the other duty areas.

Your role is to stimulate the team to make any necessary refinements that may be needed. You should question and challenge their statements and even propose alternative wording, but always allow the team to make all the technical content decisions.



## STEP 5 - SEQUENCE TASKS AND DUTY AREAS

The purpose of this step is to give the team a chance to read all task statements, in sequential order, which will help them determine whether they need to add to or delete from the task list. It also provides a means for establishing a task numbering scheme. Sequencing the duty areas and task statements does not take a lot of time and the results of the sequencing add significantly to the accuracy and completeness of the final task list.

### Possible sequencing rationales:

- chronological order
- in the order in which a worker should learn the tasks on the job
- simple to more complex
- arbitrary

Before sequencing the task statements within each duty area, provide the team with possible sequencing rationales. Sometimes the team will discover two or more subsets of tasks in one duty area that logically follow one another. Remember, though, that some tasks need not be sequenced because the order in which they

are learned or performed is arbitrary.

First, you will have the team members sequence the task statements within the duty areas. Usually, you should select the first duty area to be sequenced. Based on your knowledge of what needs to be done, you can select an area in which some of the tasks are already sequenced or in which it appears that such sequencing may be readily accomplished. Let

Explain possible sequencing rationales to the team

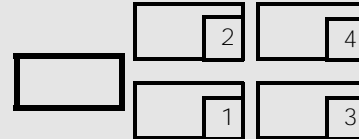
You choose the duty area to begin sequencing tasks



the team determine which sequencing rationale is most applicable to the duty area being examined.

**Technique:** To indicate the sequential order, write the number (1, 2, 3, etc.) on the *right-hand side* of a separate 1" x 2" post-it note pad and attach the post-it note to the page on which the task statement is written. This will make it easy to revise if the sequence changes later during the process.

Sequence the task statements by writing the task number on the right-hand side of a small (1" x 2") post-it note pad and attaching it to the task statement page



*Co-Facilitator:* To save time, begin writing the numbers on the post-it note pads so you can hand them, already prepared, to the Facilitator.

During the task sequencing phase, the team may discover a missing task statement, one that overlaps another, or some other need for revision. Do not permit major changes at this point, but do allow some revision.

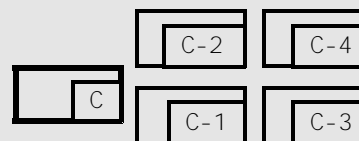
Once the team has sequenced all task statements in every duty area, ask the team to sequence the duty areas. Possible duty area sequencing rationales include:

1. Sequence the duty areas from most important to least important
2. Follow a duty area with another duty area that has similar tasks or that logically follows the previous band.

As with the task statements, the duty area sequence is partly arbitrary.

**Technique:** To indicate the duty area sequence, write an A, B, C, etc. on a post-it note pad and attach the note to the yellow duty

Add the duty area label to each duty area and task statement page



When sequencing tasks, allow minor--not major--revisions to task statements

Sequence the duty areas as appropriate

area page. Write the duty area letter on the left side of the affiliated task statement post-it note that was already placed on the white task pages.

*Co-Facilitator: As soon as the first duty area has been sequenced, begin typing the task list. (Refer to Segment 3, Appendix C, for an example.)*

*Hint: Do NOT type in tasks before they have been sequenced, as it takes more time to re-arrange them on the computer than to just wait to begin typing as each duty area is sequenced.*

**Technique:** After all tasks and duty areas have been sequenced, take a break in order to arrange all of the task statements in sequential order (but do not worry about arranging the duty areas in sequential order...this is too much work).

When the team returns from the break, have them review each duty area, reading the task statements in sequence (first to last) to ensure the task list is a reasonably accurate and comprehensive description of the job.

Ensure task list is complete

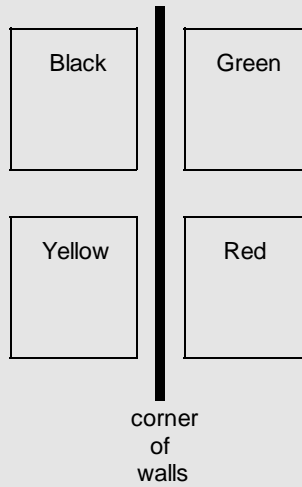


## STEP 6 - SELECT TASKS FOR TRAINING

### Perform the step without explanation

During this step the team members will simply place each task into a "colored box" according to the criteria shown in each box. The reason the Facilitator should NOT explain the intent or process of this step BEFORE participants select tasks for training is because of lessons learned when doing this process. When participants are told upfront how their selection will impact the training program, they often quit using the CRITERIA to make their selections and instead jump to the end result to make their decision. For example, a common comment the participants would make is "Oh, yuck, I don't want to have to go through training on that every two years...let's call it a 'non-formal train' task." The intent of using "colors" (black, yellow, green, and red) instead of "titles" (of non-formal train, train, pre-train, and overtrain) on the boxes is to get the team to USE THE CRITERIA to sort the tasks, not some pre-conceived notion of how that box will impact the amount of training they will receive on the task. Therefore, DO NOT EXPLAIN these terms or the end result to the participants until AFTER they have completed this step.

Hang the posters showing the criteria for each colored box near the corners of two walls. This will give you plenty of room to move each task statement page next to the appropriate poster as the team reaches consensus on each task.



**Room Set-Up:** Hang the four colored posters that show the criteria for each box. Place the "black" and "yellow" posters on one wall and the "green" and "red" posters on the adjacent wall. Leave enough space for you to be able to move the task statement pages next to the applicable poster as the team reaches consensus.

Separate posters are available that display these criteria

#### **"Black" Criteria**

- Task performed often enough that one does not forget how to do it
- There is low difficulty when performing task
- There is low probability of error when performing task
- Improper task performance makes no difference in plant operations or causes no personnel harm (low consequences of error)
- Task can be learned and competently performed with just mentoring, informal OJT, job experience, and/or a job aid/procedure

#### **"Yellow" Criteria**

- \* Task is only performed once every 2-1/2 to 5+ years
- \* Time would be available for training prior to need for task performance
- If task is performed improperly, there are moderate- to high-consequences
- \* If task does not meet this criteria, choose another box

#### **"Green" Criteria**

- Improper task performance may impair reliability of a system or process or may require a UOR (moderate consequence of error)
- Related task performance maintains proficiency on this task
- One-time training is sufficient to learn competent task performance

#### **"Red" Criteria**

- Task requires frequent practice to maintain proficiency
- Proper task performance is critical to safety (extreme consequences--serious injury, death, or site emergency)
- Task performed seldom enough that one may forget how to perform task

**Intent of Step 6:** The intent of this step is for participants to select one color for each task. The color should be chosen based on which poster **"BEST FITS"** the task. There are a couple of techniques that can be used during this step. Use whichever of the following techniques that takes the least amount of time.

Use Nominal Group Technique to select a box for each task in the first duty area

Tally the results during the round robin

### Technique 1: Use the "Selection Form"

Distribute to each team member 20 copies of the "Selection Form" (refer to "Workshop" section of their Participant Manual). Use NGT to have each team member **use the criteria** to silently determine in which box each task in Duty Area "A" **best fits**. (NOTE: It will be a "best fit" decision--a task may not meet *all* the criteria in one box but can still be placed in that box. A task may fit criteria in several boxes, but should be placed in the box where it meets the most criteria.)

Each participant will use the Selection Form to silently write down their choice for each task within the entire duty area. When using the round robin, indicate on the flipchart how many indicated "black," "yellow," "green," or "red" for each task. Then circle the majority answer. **Only discuss those items where there is no majority** (otherwise you will run out of time in the seminar!) Then move on, having the team use NGT for the next duty area. This duty-area by duty-area technique typically takes the least amount of time.

As team members state their color during the round robin, keep track of the status on a flipchart by making a tick mark under "black," "yellow," "green," or "red."

Task	black	yellow	green	red
A-1	///		/	
A-2			////	
A-3			///	/
A-4	//		//	
A-5	//	/	/	
A-6			/	///

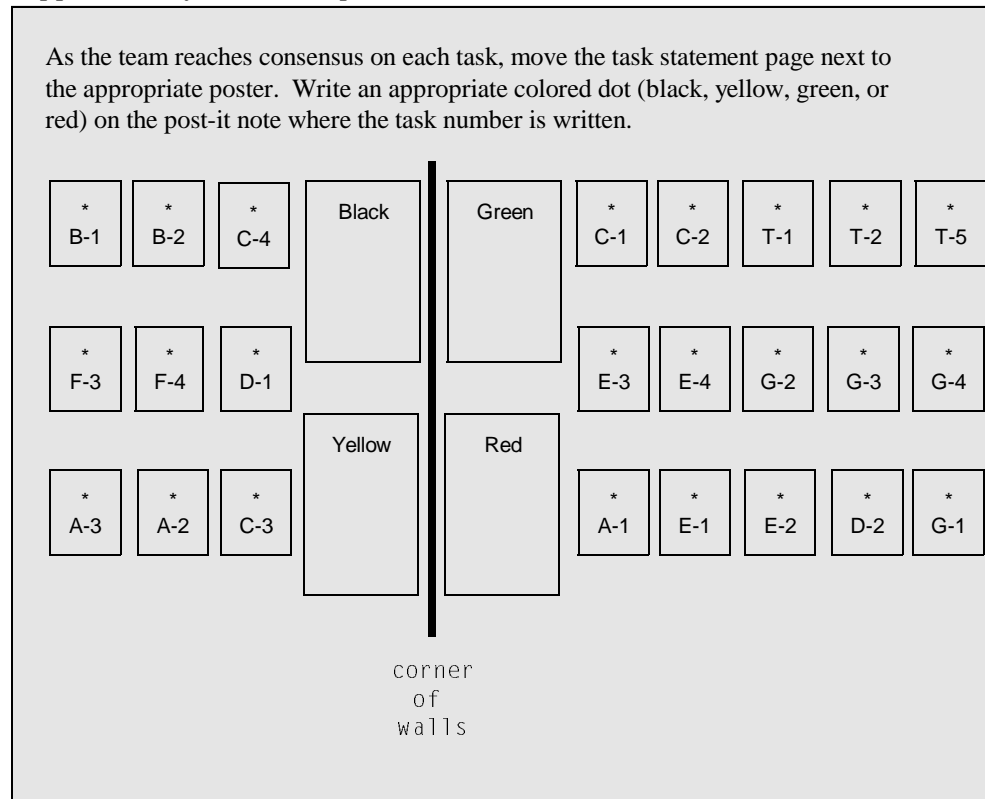
### Technique 2: "Olympic Judges" Game

Have each team member draw a large, black, filled-in box on a 3 x 5 post-it note pad. Have them make three others, one with a yellow box, one with a green box, and one with a red box. Focusing on Duty Area A, have them hold up the appropriate-colored box to indicate their selection for Task A-1. (NOTE: Keep reminding team members that they should make their selection based on the criteria!) As Facilitator, simply look at what everyone is holding up and state which color is the majority. Then have them hold up their selected color for Task A-2, etc. NOTE: If it looks like the team members will be debating over the answer for each task, revert to Technique 1 above. There is not enough

Place each task statement next to the applicable poster

time in the seminar to debate **every task** in terms of which color it should be.

*Co-Facilitator: When consensus is reached (indicated by the circled answer on the flipchart OR by what the Facilitator says is the majority), remove the task statement page from the TTJA wall and place it on the wall next to the appropriate poster. Put a black, yellow, green, or red dot on the post-it page where the task number is written. For each task, type the selection into the task list format (refer to Segment 3, Appendix A, for an example).*



Allow observers to practice facilitating

Make sure the developers who are observing the process document any training-related discussions, especially when the team describes how people could learn the tasks placed in the "black" box.

After you have demonstrated this process for the first two or three duty areas, have the observers take turns facilitating the selection of tasks as training for the remaining duty areas. Provide non-threatening critique and guidance as necessary.

## Explain the Results

AFTER all tasks have been placed in the appropriate box based on the criteria, explain what implications their selections have had on the training program:

1. The black box indicates those tasks (termed "non-formal train" tasks) which can be learned via non-formal training methods (such as mentoring, informal OJT, using job aids, or following procedures). Formal training (with documented lesson plans, tests, and attendance records) need **not** be developed for the "non-formal training" tasks, although the job aids and procedures would need to be developed.
2. The green box indicates those tasks (termed "train" tasks) that should be **formally** taught, one time, as part of the **initial training** program. Because they will be included in the formal training program, lesson plans (for classroom, formal OJT, laboratory, self-study, and/or simulator) and tests need to be developed and used for training. However, these materials may not need extensive development efforts (e.g., "boilerplate" lesson plans and tests may suffice). Because it is formal training, records need to be kept to indicate which people attended the training.
3. The red box indicates those tasks (termed "overtrain" tasks) that should be **formally** taught, both in **initial training and** on a **continuing** basis, such as biennially. Because they will be included in the formal training program, lesson plans (for classroom, formal OJT, laboratory, self-study and/or simulator) and tests need to be developed and used for training. However, because of the critical consequences that may occur if these tasks are not performed correctly, more extensive development efforts may be appropriate (e.g., detailed lesson plan content, detailed test content, detailed instructions, etc.). Because it is formal training, records need to be kept to indicate which people attended the training.
4. The yellow box indicates those tasks (termed "pre-train" tasks) that should be **formally** taught, but only taught just prior to when the task

needs to be performed. Therefore, it would **not** be taught in initial training or even every 2 years in continuing training. The tasks would only be taught just prior to when the task needs to be performed. (The tasks placed in this box were those that are only performed once every 2-1/2 to 5+ years and can be planned far enough in advance to conduct training. Therefore, it would not be cost-effective to teach people how to perform the task when they first arrive on the job and then keep re-teaching them every two years if they only have to perform that task once every five years.) Because it is included in the formal training program, lesson plans and tests would need to be developed and used, and records need to be kept to indicate which people attended the training. NOTE: For many job positions, there may be no "yellow" tasks.

As the Facilitator, keep in mind there is one "last resort" option for completing this step. If the team members absolutely cannot come to consensus on the designation of "black," "yellow," "green," or "red" by using the criteria in the boxes, you may choose to conduct this step by using the "DIF" process. Refer participants to the "DIF" form and instructions in the "Workshop" portion of their Participant Manual. Read the instructions with the participants and then ask each team member to silently rate each task for "difficulty," "importance," and "frequency" (DIF). When they are finished, have the participants take a break so you and the Co-Facilitator can calculate the **average** results for each task in terms of DIF. Then, using the average DIF results for each task, apply the task results to the "Decision Tree," also located in the Participant Manual (perhaps the team members can help you do this to save time), to determine if the task is a "no train" (equivalent to a black box), "train" (green box) or "overtrain" (red box). There is no "pre-train" (yellow box) using this method.

NOTE: The DIF process is, in our opinion, more time consuming and does not provide the excellent training-related discussions that arise with the "box" method. Use this **ONLY** as a very last resort.





## SEMINAR SUMMARY

*Co-Facilitator: Print the completed cover letter and list of tasks selected for training. Have all team members and Facilitators sign the task list, documenting their participation in the process and agreement with the validity of the results. Facilitators should keep both a disk and hard copy of the task list.*

As the Co-Facilitator is preparing the final task list for signature, explain how the list of tasks selected for training will be used in the next SAT stages. If the facility conducts the seminar titled "Table-Top Training Design" (TTTD), the task list would be used in several ways. First, the team members (the same people who participated in this TTJA seminar) would help determine the training program structure--what training sessions should be taught and how often (annually, biennially, etc.) Next, the team members would place each train and overtrain task within the appropriate training sessions. Then, for the highest-priority training sessions, the team members would determine what content to teach in the training session, based on the tasks included in that training session. The trainers and Facilitators would write the learning objectives for those training sessions based on the content described by the team members. The products resulting from the TTTD seminar would include a training program description, a task-to-training matrix, and design specifications for the highest-priority training sessions.

To wrap up the seminar, sincerely thank the members for their cooperation and persistence. Re-emphasize the importance of the member's contribution to the facility's training efforts. The Coordinator will send thank-you letters and a certificate to each member of the team soon after the workshop. If you have not already done so, collect the attendance roster.

Collect the seminar evaluation forms that you distributed to all participants during the Introduction lesson.

## APPENDIX A--FORMAT FOR CAPTURING TASK CONTENT

**Directions:** Type this document during TTJA Step 4, "Identify Tasks." This document does not need to be anything fancy, but it does need to accurately record each item that gets "crossed-out" as a result of "circling" the task statement. This document will be used in the "Table-Top Training Design" seminar as a way of reviewing some of the "content" involved in each task.

**CAUTION:** The intent is **NOT** for the TTJA Facilitator to have the team think of every element or step of a task so that it can be recorded in this document. (That is beyond the scope and intent of TTJA.) Rather, this document serves as a means to capture information that **naturally** falls out during TTJA Step 4 so that during the Table-Top Training Design seminar participants will have a "head start" when attempting to think of the elements/steps involved in each task.

---

### NAME OF DUTY AREA

Name of Task

- First item that was folded into this task
- Second item that was folded into this task
- Third item that was folded into this task
- Etc.

Name of Task

- 
- 
- 

### NAME OF DUTY AREA

Name of Task

## APPENDIX B--EXAMPLE TASK LIST COVER LETTER

**Directions:** This letter serves as "auditable documentation" of the process and people used to develop the valid task list. You should place this letter and the list of tasks selected for training in the training files of your facility. The same basic content should be used each time this seminar is delivered, but since it describes the TTJA process used, you may need to "customize" it a little to describe any verification analysis or other techniques incorporated into this particular delivery.

---

Date:           *(Today's Date)*

To:             *(Manager of Operating Organization)*

From:           *(Manager of Training Department)*

Subject:        TABLE-TOP JOB ANALYSIS FOR *(NAME OF POSITION AND NAME OF FACILITY)*

From *(dates of seminar)*, the people listed on Attachment 1 participated in the "Table-Top Job Analysis" seminar. The results are provided in Attachment 1. Using a table-top approach, the team developed a valid task list for the job position and selected tasks as "non-formal training," "pre-train," "train," and "overtrain." Because of the combination of *(list the types of people involved--job incumbents, subject matter experts, first-line supervisors, other managers, etc.)*, the results provided in Attachment 1 are self-validating and may not require further review prior to continuing with the systematic approach to training process. The table-top process included the following steps:

1. Orient the team to the process
  2. Review the boundaries of the job (which positions included in this analysis)
  3. Identify duty areas
  4. Identify tasks using a combination of these methods:
    - a. nominal group technique
    - b. procedural review
    - c. verification analysis using *(name of task list and facility)*
  5. Sequence tasks and duty areas
- Page 2

6. Select tasks for training based on the following criteria:

- a. Non-Formal Training tasks (impact: not included in formal training program)
  - task performed often enough that one does not forget how to do it
  - there is low difficulty when performing task
  - there is low probability of error when performing task
  - improper task performance makes no difference in plant operations or harm to personnel (low consequences of error)
  - task can be learned and competently performed with just mentoring, informal OJT, job experience, and/or a job aid/procedures
- b. Pre-Train tasks (impact: tasks are taught formally, on an as-needed basis)
  - task is only performed once every 2-1/2 to 5+ years
  - time would be available for training prior to need for task performance
  - if task is performed improperly, there are moderate- to high-consequences
- c. Train tasks (impact: tasks are formally taught once during initial training using boilerplate lesson plans and tests)
  - improper task performance may impair reliability of a system or process or may require a UOR (moderate consequences of error)
  - related task performance maintains proficiency on this task
  - one-time training is sufficient to learn competent task performance
- d. Overtrain tasks (impact: tasks are taught formally in initial and continuing training using more detailed lesson plans and tests)
  - task requires frequent practice to maintain proficiency
  - proper task performance is critical to safety (extreme consequences--serious injury, death, or site emergency)
  - task performed seldom enough that one may forget how to perform task

A detailed description of the table-top process used during this seminar is provided in the *Facilitator Guide*, which is Attachment 2. Signatures of the participants involved in creating Attachment 1 are provided on Attachment 1. If you have any questions or require further information, please contact me.

- Attachments:
1. Valid list of tasks selected for training
  2. "Table-Top Job Analysis - Facilitator Guide"

APPENDIX C--FORMAT FOR DOCUMENTING THE LIST OF TASKS SELECTED FOR TRAINING

Directions:

- 1. After TTJA Step 5 (Sequence Tasks and Duty Areas), when all tasks and duty areas have been sequenced, type each duty area and its associated tasks in sequential order into Column 1, "Complete Task Listing."
- 2. During TTJA Step 6 (Select Tasks for Training), as each task is placed in a "box," type an "X" in the appropriate column:
  - black = non-formal training
  - yellow = pre-training
  - green = initial training (train)
  - red = continuing training (overtrain)
- 3. NOTE: The last column, "Training Session(s) and JPMs in which Task is Taught/Evaluated," will NOT be filled in during the TTJA seminar. Rather, this column will be filled in during the subsequent "Table-Top Training Design" seminar.



Reviews: Table-Top Job Analysis Committee

Title: _____	Name: _____	Date: _____
Title: _____	Name: _____	Date: _____
Title: _____	Name: _____	Date: _____
Title: _____	Name: _____	Date: _____
Title: _____	Name: _____	Date: _____
Title: _____	Name: _____	Date: _____
Title: _____	Name: _____	Date: _____
Title: _____	Name: _____	Date: _____

Page # of #

## SEGMENT

# 4



## CAUTION

## WHAT TO DO FOLLOWING THE SEMINAR

What do you need to do with the items on the wall? What do you need to give the Coordinator?

### Directions

Read the information about what to do following the seminar.

### REMOVE THE TASK LIST FROM THE WALL

As soon as the team members have departed, remove all duty area and task statement pages from the wall, being sure the post-it pads indicating duty area, task number, and designation as "black," "yellow," "green," or "red" are secured to the page. These pages will be needed if the facility continues with the "Table-Top Training Design" seminar. (**CAUTION:** Do not allow the pages to get taped together. This will make it difficult to separate them later.)





## DE-BRIEF WITH THE COORDINATOR

### **Give to Coordinator:**

1. The cover letter explaining how the task list was developed and who was involved
2. The typed list of tasks selected for training (on disk and a hardcopy signed by team members)
3. The pile of tasks, numbered and labelled to indicate sequence and designation as "no-train", "train", "overtrain", and "pre-train"
4. The disk of "content" that was incorporated under a task statement
5. The roster of people who participated
6. If used, the forms used to rate each task for DIF

Give this information to the Coordinator to serve as auditable documentation showing how the task list and selection of tasks as no train, pre-train, train or overtrain were developed.

### **NOTE TO FACILITATORS:**

Keep a copy of the attendance roster, all evaluation forms, and the task list. Complete a "Facilitator" evaluation form (TTJA Introduction-HD-3) and return it to whomever maintains the seminar materials.

**CONGRATULATIONS! YOU'VE FINISHED!**



## SEGMENT

# 5



**Use the yellow copy in the front folder as your job aid when preparing for, conducting, and concluding the TTJA seminar**

## FACILITATOR'S CHECKLIST FOR CONDUCTING TTJA

### DIRECTIONS:

The TTJA Checklist is provided on the following pages. The copy you should use is printed on yellow paper and is provided in the front pocket. This checklist is a job aid to remind you of the activities required for adequate preparation, the proper sequence of TTJA steps, and the activities required to conclude the seminar. It summarizes what you read in Segments 2, 3, and 4, so if you need to refresh your memory as to what each item entails, refer to Segment 3. We suggest you use a pencil as you check off each item so you can re-use the checklist each time you conduct the seminar.

Under each TTJA item, the checklist indicates the following:

→ = Perform the action shown

? = Ask the team the comprehension question shown. This is to refresh the team's memory at a time when they need to apply their knowledge.

-- = Reminders to you that you need not convey to the team

<input checked="checked" type="checkbox"/>	<h2 style="text-align: center;">TTJA CHECKLIST</h2>
<div> <div>_____</div> <div>_____</div> <div>_____</div> <div>_____</div> <div>_____</div> <div>_____</div> <div>_____</div> <div>_____</div> <div>_____</div> <div>_____</div> </div>	<p><b>PREPARING FOR THE SEMINAR</b></p> <ul style="list-style-type: none"> <li>→ Study the entire <i>Facilitator Guide</i> and all lesson plans</li> <li>→ Assign team-teaching responsibilities</li> <li>→ Confirm details with Coordinator             <ul style="list-style-type: none"> <li>-- Number of job positions to be analyzed during the seminar</li> <li>-- Who is providing healthful refreshments</li> <li>-- Will a music system be allowed in meeting room</li> <li>-- Coordinate computer and printer needs</li> <li>-- Who is providing supplies and equipment</li> <li>-- Confirm introductions</li> </ul> </li> <li>→ Obtain job information from Coordinator             <ul style="list-style-type: none"> <li>-- Needs Analysis Worksheet</li> <li>-- TTJA Planning Sheet</li> <li>-- Brief job description</li> <li>-- Any existing task list(s) for the job</li> <li>→ A task list from a similar position at another facility</li> <li>-- A list of procedures applicable to the job position</li> <li>-- Copy of 2-5 procedures that reflect tasks involved in job</li> </ul> </li> <li>→ To familiarize yourself with the job, create a possible list of duty areas and tasks for the job position</li> <li>→ Build job-specific examples into the "Overview" lesson</li> </ul>

<input checked="checked" type="checkbox"/>	<h2 style="text-align: center;">TTJA CHECKLIST</h2>
<p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p> <p>—</p>	<p><b>STEP 1 - ORIENT TEAM (~4 hr)</b></p> <ul style="list-style-type: none"> <li>→ Team-teach the lessons using Attachments 1-3</li> <li>→ Each morning, briefly review the "big picture" described in the Overview lesson</li> <li>→ Prepare for the workshop             <ul style="list-style-type: none"> <li>→ Arrange the room</li> <li>→ Set up supply table</li> <li>→ Check wall surface</li> <li>→ Use accelerated learning techniques                 <ul style="list-style-type: none"> <li>-- toys/noisemakers for each participant</li> <li>-- music</li> <li>-- refreshments</li> <li>-- breaks</li> </ul> </li> </ul> </li> <li>→ Have observers move to back of room and read the <i>Facilitator Guide</i> to help them perform during TTJA Steps 4 and 6.</li> <li>→ Remind the person who will be developing the training to take notes during training-related discussions.</li> </ul>
<p>—</p> <p>—</p>	<p><b>STEP 2 - REVIEW JOB (~15 min.)</b></p> <ul style="list-style-type: none"> <li>→ Clarify job title(s) and specializations to be analyzed in this seminar</li> <li>→ <i>Post job title on white 8-1/2" x 11" paper at top center of TTJA wall</i></li> </ul>



## TTJA CHECKLIST

### STEP 3 - IDENTIFY DUTY AREAS (~1 hr.)

- ? Ask for definition of "duty area"
- ? Ask how many duty areas are typically involved in a job (5-12)
- ? Ask for examples of how duty areas can be grouped (systems, location, components, procedures, other)
- → Have team select the most appropriate way to group duty areas for this job position
- → Refer team to previous analyses (in "Workshop" section of Participant Manual) to get ideas
- -- Keep in mind how the duty areas will impact the ability to write tasks at an appropriate level
- → Use Nominal Group Technique to have team identify duty areas
- -- Have each team member silently generate a list of duty areas
- → During round robin, write their suggestions on flipchart, alternating lines with two different color markers
- -- Provide guidance and reassurance
- → Have team briefly determine if duty areas should be combined or modified
- → Use color coding/cross-through technique to track what gets "folded into" the final choice
- -- Ensure tasks performed under emergency/abnormal conditions will be encompassed by the duty areas chosen
- → *As group consensus is obtained, write each duty area horizontally on a separate yellow 8-1/2" x 11" sheet*
- → *Post duty area sheets in two vertical columns down center of TTJA wall*



## TTJA CHECKLIST

### STEP 4 - IDENTIFY TASKS (~10 hr.)

- \_\_\_ ? Ask for definition of "task"
- \_\_\_ ? Ask how many tasks typically included in each duty area (6-20)
- \_\_\_ ? Ask the team to state the preferred number of words a task statement should have (maximum 8, 2-3 preferred)
- \_\_\_ → Review with team the criteria for tasks and task statements
  - Refer team to these pages in Workshop section of Participant Manual
  - Refer team to list of acceptable action verbs in Workshop section of Participant Manual
- \_\_\_ → Have the team select the most appropriate level at which to write the tasks
- \_\_\_ → Choose an easy duty area to begin
- \_\_\_ → Use Nominal Group Technique to have team identify tasks within first duty area
  - Use brainstorming, procedural review, and verification analysis as appropriate
  - Have each team member silently generate a list of tasks for the duty area
  - During round robin, write their suggestions on flipchart, alternating lines with two different color markers
  - Use color coding/cross-through technique to track items that are "folded into" the final choice
  - Make sure the task statement reflects the duty area statement
- \_\_\_ -- Help team critique action verb, review object, and check modifiers/qualifiers of task statements



## TTJA CHECKLIST

### STEP 4 - IDENTIFY TASKS, Cont'd (~10 hr)

- *As group consensus is reached, write each task statement horizontally on a white 8-1/2" x 11" sheet*
- *Use one color marker to write all tasks for one duty area; use another color for all tasks in the next duty area, etc.*
- *Type the "task content" document*
- *Post task statements to the right (or left) of the applicable duty area page*
  - Focus on one duty area at a time
  - Do not spend time sequencing tasks
  - Take breaks between duty areas
  - When moving to next duty area, select one with similar tasks as previous area
- *After you finish the first two duty areas, have an observer conduct this step for the next duty area*
  - Provide non-threatening critique and guidance
- *Have team compare their task list with the one you developed during preparation and/or another facility's task list (verification analysis)*
- *In the cover letter, document whether this process occurred*
- *Have team check the number of tasks per duty area; combine or divide duty areas as necessary*
- *Have team determine if duty area still encompasses all tasks; revise duty area statement as necessary*





## TTJA CHECKLIST

### STEP 5 - SEQUENCE TASKS AND DUTY AREAS (~1 hr)

- Explain the purpose of this step
- Explain task sequencing techniques to team
  - chronological order
  - order in which should learn on job
  - simple to complex
  - arbitrary
- Have team sequence tasks within duty areas
  - Start with a duty area where some tasks are already sequenced
  - Write number (1, 2, 3, etc.) on the right side of a post-it note and attach to sheet
  - Allow some revision to task statements, but no major revisions
  - Review entire sequence before going to next duty area
- Explain duty area sequencing techniques to team
  - Sequence duty areas from most important to least important
  - Look for duty areas that logically follow one another
  - Arbitrary
- Have team sequence duty areas
  - Write duty area letter (A, B, C, etc.) on a post-it note and place on duty area sheet
  - Write duty area letter on the left side of the previously-attached post-it note to indicate duty area on each task statement sheet (A-1, A-2, etc.)

<input checked="" type="checkbox"/>	<h2 style="text-align: center;">TTJA CHECKLIST</h2>
<p>—</p> <p>—</p> <p>—</p>	<p><b>STEP 5 - SEQUENCE TASKS AND DUTY AREAS, Cont'd (~1 hr)</b></p> <ul style="list-style-type: none"> <li>→ <i>Start typing task list as each duty area is sequenced</i></li> <li>→ When all tasks and duty areas are sequenced, take a break and move the task pages in sequential order (but not necessarily the duty area pages)</li> <li>→ Obtain final agreement on entire task list</li> </ul>
<p>—</p> <p>—</p> <p>—</p> <p>—</p>	<p><b>STEP 6 - SELECT TASKS FOR TRAINING (~5-1/2 hr)</b></p> <ul style="list-style-type: none"> <li>→ Post criteria posters, TTJA Overview-P-7 through P-10, near the corner of two walls</li> <li>→ Remind the person who will be developing the training to take notes during training-related discussions</li> <li>→ Refer to TTJA Overview-P-7 through P-10 and use Nominal Group Technique for each person to select tasks for training within the first duty area <ul style="list-style-type: none"> <li>-- Have each team member use the "Selection" Form in their Participant Manual to silently determine "black," "yellow," "green," or "red" for each task within that duty area</li> </ul> </li> </ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> <li>-- Use the "Olympic Judges" technique</li> <li>→ As you conduct the round robin, indicate (for each task) how many people chose "black," "yellow," "green," or "red"</li> </ul>

<input checked="checked" type="checkbox"/>	<h2 style="text-align: center;">TTJA CHECKLIST</h2>
<div> <div>—</div> <div>—</div> <div>—</div> <div>—</div> <div>—</div> </div>	<p><b>STEP 6 - SELECT TASKS FOR TRAINING, Cont'd (~5-1/2 hr)</b></p> <ul style="list-style-type: none"> <li>→ <i>As consensus is reached, move each task statement next to the applicable poster</i></li> <li>→ <i>Put an applicable color dot on the previously-attached post-it note (that shows the duty area letter and task number)</i></li> <li>→ <i>Type the selection into the task list</i></li> <li>→ After you finish the first two duty areas, have an observer conduct this step for the next duty area.             <ul style="list-style-type: none"> <li>-- Provide non-threatening critique and guidance</li> </ul> </li> <li>→ Explain to participants how their selection of black, yellow, green, or red impacts the training program</li> </ul>
<div> <div>—</div> <div>—</div> <div>—</div> <div>—</div> <div>—</div> </div>	<p><b>SEMINAR SUMMARY (1/2 hr)</b></p> <ul style="list-style-type: none"> <li>→ <i>Print cover letter and list of tasks selected for training; have all team members and Facilitators sign the list</i></li> <li>→ Explain how the TTJA results will be used in the Table-Top Training Design seminar</li> <li>→ Sincerely thank team members and observers for their cooperation and persistence</li> <li>→ Explain that everyone will receive a certificate for their efforts</li> <li>→ Collect seminar evaluation forms from participants and observers (TTJA Introduction-HD-2 and HD-3)</li> </ul>



## TTJA CHECKLIST

### AFTER THE SEMINAR

- Remove the task and duty area pages from the wall
  - Don't let the pages get taped together
- Complete your evaluation form (TTJA Introduction-HD-3)
- Give to the Coordinator:
  - cover letter (hardcopy and disk)
  - list of tasks selected for training (signed hardcopy and disk)
  - pile of task and duty area pages
  - task content (hardcopy and disk)
  - attendance roster
  - all evaluation forms
  - DIF forms, if used
- Facilitator keep:
  - cover letter (hardcopy)
  - list of tasks selected for training (hardcopy and disk)
  - task content (hardcopy)
  - copy of attendance roster
  - copy of evaluation forms

## REFERENCES

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4. Haynes, Marion E., *Effective Meeting Skills*, Crisp Publications: Los Altos, California, 1988.
5. TAP2, Performance-Based Training Manual, U.S. Department of Energy Training Accreditation Program, DOE/NE-0102T, July 1991.
6. DOE Order 5480.20, Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Reactor and Non-Reactor Nuclear Facilities, February 1991.
7. DOE Order 5480.18A, Accreditation of Performance-Based Training for Category A Reactors and Nuclear Facilities, July 1991.
8. Management and Oversight of PBT Programs Course, DOE Training Coordination and Accreditation Program, DOE/ID-10388, December 1992.
9. Instructional Analysis and Design Course, DOE Training Accreditation Program, DOE/ID-10327, August 1991.

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

Page 1 of 20

COURSE TITLE: Table-Top Job Analysis

LESSON TITLE: Introduction

TIME REQUIRED: 40 min.

REFERENCES:

OBJECTIVE: Seminar Purpose: Given all training materials and guides, the facility training staff will be able to CONDUCT Table-Top Job Analysis in a consistent and repeatable manner and DEVELOP task lists for the job positions/programs required to meet DOE Orders 5480.18A and/or 5480.20.

Seminar Terminal Objective: Using the Table-Top Job Analysis process, participants will DEVELOP a task list and SELECT tasks for training that will meet the intent of DOE Orders 5480.18A and/or 5480.20.

INSTRUCTIONAL AIDS: Poster P-1; Distributed Handouts HD-1 through HD-3; Overhead transparencies 0-1 through 0-6; Sign S-1, Overhead projector and screen, one flipchart stand with flipchart pads, flipchart markers

PARTICIPANT PREPARATION: None

PRESENTATION METHOD: Lecture, introductions

EVALUATION METHOD: N/A

NOTES TO INSTRUCTOR:

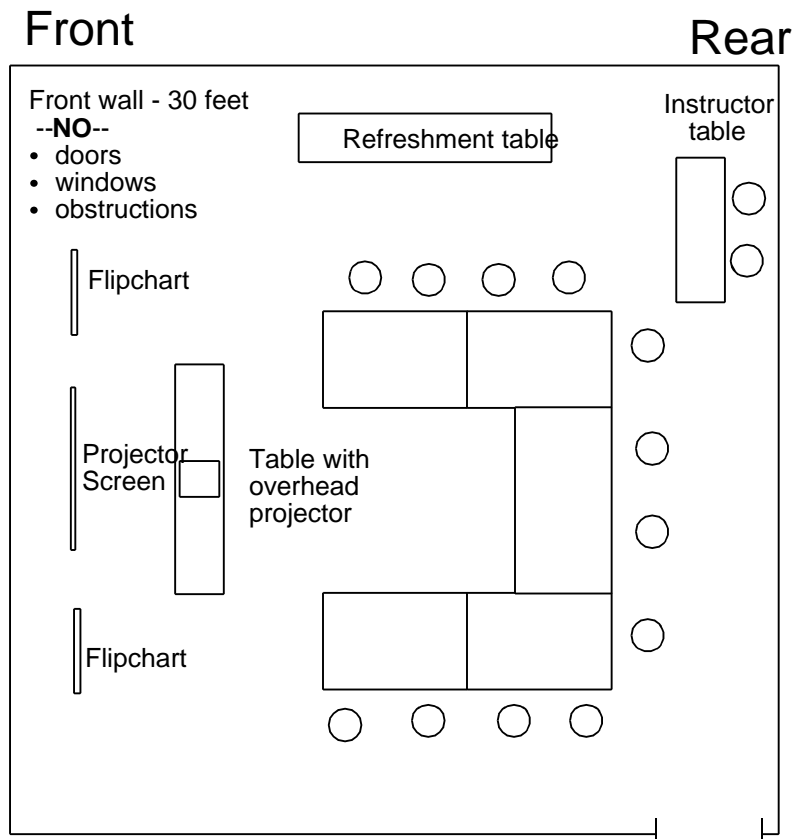
TO PREPARE FOR THE ENTIRE SEMINAR:

1. Arrive at class location 1 hour early.
2. Set up the room by completing the following tasks:

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

Page 2 of 20



- a. Arrange table and chairs in a U-shape, with the overhead projector, screen, and flipchart stands at the opening of the U. Team members and observers will participate in this lesson. Leave plenty of writing space between participants.
- b. Neatly place the following on the table for each participant:
  - Participant Manual
  - name tent
  - pencil/pen
  - yellow highlighter
  - one flipchart marker per table, in dark/bright colors
  - one small (1-1/2"x2") post-it note pad per table
  - one large (4"x6") post-it note pad per table

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

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- c. If available, provide each table with a pitcher of ice water and glasses.
3. It is very important that we apply accelerated learning techniques during this seminar. People need to be relaxed, alert, and energized to make the seminar a success. We cannot forget or underestimate the importance of climate setting. Therefore, please do the following:
  - a. Unless the Coordinator has made these arrangements, on the first day bring healthful snacks such as fresh fruits, vegetables, crackers, juice, etc. In this lesson participants are asked to bring healthful refreshments the following days.
  - b. Play music such as light jazz (with no singing) or other upbeat music during breaks. Earl Klugh and Kenny G are good examples.
  - c. Distribute a toy and/or noisemaker to each participant.

Refer to the Facilitator Guide for additional information regarding accelerated learning techniques.

4. Post "TTJA Seminar" sign outside of classroom door.
5. Ensure training equipment works, i.e. overhead (check focus), VCR, monitor, etc.
6. Write the following names and phone numbers on flipchart paper and leave displayed throughout the seminar:
  - The instructor/facilitator(s)
  - The TTJA Coordinator

### TO PREPARE FOR THIS LESSON:

1. Post PBT-INTRODUCTION-P-1 (Course Objective) on a wall other than the TTJA wall, but in a location easily viewed by entire class. Leave posted throughout the seminar.
2. Ask facility manager about the parking policy, smoking policy, location of restrooms and availability of phones.



## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

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3. Ensure that enough copies of distributed handouts for this lesson are available.
  - a. 1 TTJA Roster (TTJA INTRODUCTION-HD-1) [Note to OTTA Staff: When it has been completed, make a copy of the roster for our attendance records.]
  - b. 15 Seminar Evaluation forms for Team Members and Observers (TTJA INTRODUCTION-HD-2)
  - c. Enough Seminar Evaluation forms for Coordinator and Facilitators (TTJA INTRODUCTION-HD-3)

This lesson begins with a series of short introductions:

1. First, the Coordinator will introduce a manager from the operating organization that needs the task list. The manager should welcome the team officially, thank the team members for their participation, and acknowledge the importance of their contribution to this TTJA seminar. (This should only take 1 minute.) By completing the "Coordinator Guide," the Coordinator should know that this is supposed to happen. It would be helpful if you confirm this with the Coordinator prior to the TTJA seminar.)
2. Second, the Coordinator will introduce you as the Instructor/Facilitator for this seminar. The Coordinator should acknowledge the skills required to be a Facilitator and then briefly explain your qualifications and experience. (This should only take 1 minute. Prior to the seminar, you should discuss with the Coordinator what you want the Coordinator to say during this Introduction.)
3. Third, you will introduce yourself by stating your name, where you work, what your primary job is, and what your experience has been in performing job analysis and table-top job analysis. (This should only take 2 minutes.)

Throughout this lesson you must exude enthusiasm for how well the TTJA process works, while creating a relaxed, risk-free, congenial environment for all participants. You should also extend a personal greeting to the participants and congratulate the team members on being recognized as experts in their field.

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

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**SKELETAL OUTLINE** (Note: The skeletal outline is NOT meant to replace the lesson plan. Rather, it is to serve as an aid to the instructor when preparing to teach this lesson so the instructor may easily see the overall structure and flow of this lesson.)

## I. Welcomes

- A. From representative of organization needing the task list (1 min.)
- B. Coordinator introduces Facilitator (1 min.)
- C. Facilitator introduces self (2 min.)

## II. General Introduction

- A. Motivator
- B. Purpose of Seminar
- C. Seminar Objective
- D. Seminar Overview
- E. Participant's Materials
- F. Roles

## III. Icebreaker

## IV. Housekeeping

## V. Expectations

- A. Attendance requirements
- B. Seminar evaluation form
- C. Other

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

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## Discussion Points

## Instructor / Trainee Activity

## I. WELCOME

- A. Welcome from Manager of Operating Organization Needing Task List (1 min.)
- B. Welcome from Coordinator who Introduces Facilitator (1 min.)
- C. Facilitator Welcome (2 min.)
  - 1. Welcome to the "Table-Top Job Analysis Seminar."
  - 2. Introduce self
    - a. Your name
    - b. Where you work
    - c. What your primary job is
    - d. Your experience in conducting Table-Top Job Analysis

REFER to "Notes to Instructor"

INTRODUCE yourself and REFER to your name and number on the board or flipchart

(5 min into lesson)

## II. GENERAL INTRODUCTION

## A. Motivator

- 1. ASK the following questions to motivate participants and lead into the seminar purpose:
  - How long have you been in this job?

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

Page 7 of 20

## Discussion Points

## Instructor / Trainee Activity

- What kind of training did you receive when you first started?
  - How effective was the training?
  - Was the training time well-spent?
  - Did it help you learn to perform your job well?
  - Would a new person be able to perform your job well if they received the same training you did?
2. A good training program ensures that workers can safely, competently, and efficiently perform their job.

It teaches workers what they need to know and do to perform well, yet it does not waste their time on topics irrelevant to their job.

ASK: What do you consider to be the benefits of a good training program?

HOLD up Workbook and have participants turn to page 2 behind the "Introduction" tab.

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

Page 8 of 20

## Discussion Points

## Instructor / Trainee Activity

3. In order for the training program to be "good," as described, the training program content must be based on the tasks involved in performing the job.

(10 min into lesson)

## B. Purpose of Seminar

1. You were selected to participate in this seminar because you are perceived as "role models" for excellent job performance.
2. In this seminar you will use your expertise and experience to develop a list of the tasks involved in your job.
3. The task list will then serve as the foundation for training program content so that your co-workers and any new hires can benefit from your expertise and perform as safely and competently as you do.

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

Page 9 of 20

## Discussion Points

## Instructor / Trainee Activity

4. At the same time, we will be showing your training staff how to conduct future TTJA seminars to develop task lists for other job positions. This helps meet the overall seminar purpose:

"Given all training materials and guides, the facility training staff will be able to CONDUCT Table-Top Job Analysis in a consistent and repeatable manner and DEVELOP task lists for the job positions/programs required to meet DOE Orders 5480.18A and/or 5480.20."

## C. Seminar Objective

1. What you will be performing in this seminar is the objective:

"Using the Table-Top Job Analysis process, participants will DEVELOP a task list and SELECT tasks for training that meet the intent of DOE Orders 5480.20 and/or 5480.18A."

SHOW: TTJA-  
INTRODUCTION-O-1,  
Seminar Purpose

READ: TTJA-  
INTRODUCTION-P-1,  
Seminar Objective

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

Page 10 of 20

## Discussion Points

## Instructor / Trainee Activity

2. The process we will use to develop the task list is called Table-Top Job Analysis.
3. Table-top job analysis involves a team of subject matter experts, supervisors, and (as appropriate) engineers who understand the design of facility systems. The team meets in a workshop to develop a list of the tasks performed in a specified job position.

A Facilitator (usually an instructional technologist) guides the team through the process and posts the task statements on a wall or other easy-to-see surface.

4. Note: The task list developed in this seminar (or in any job analysis process) is not going to be 100% perfect. To strive for perfection is cost prohibitive. The training program evaluation process will identify any changes required in the task list.

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

Page 11 of 20

## Discussion Points

## Instructor / Trainee Activity

5. You will learn more about job analysis and TTJA in the next lesson.

(15 min into lesson)

## D. Seminar Overview

SHOW: TTJA

INTRODUCTION-0-2,  
Seminar Overview

1. This seminar is divided into two segments: a training portion and a workshop portion.
2. During the training portion, I will give you what you need to know in order to perform well during the seminar.
3. Then I will become the Facilitator and guide you through the Table-Top Job Analysis workshop.

REFER participants to  
Workbook p. 4

## E. Participant Materials

Your workbook provides you with information that you will apply during this seminar.



## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

Page 12 of 20

### Discussion Points

### Instructor / Trainee Activity

1. The Lesson Section is labeled with the name of the lesson (e.g., "Introduction," "Overview," and "Team Skills"). Use this section to follow along during the lesson. Feel free to write ideas or take notes during the seminar.
2. The Handout Section is labeled as the "H" tab (e.g., "Overview-H"). It provides additional handouts to refer to during the lessons.
3. The last section of the workbook is the Workshop Section. You will use the forms and other information in this section when we are conducting the actual TTJA workshop.

### F. Roles

Transition: Our objective this week is to develop a list of tasks associated with the job. In order to accomplish this we are using a team. Within the team, different people have defined roles.

**I NSTRUCTOR P REPARATI ON P AGE**

Lesson: Introduction

Page 13 of 20

Discussion PointsInstructor / Trainee Activity

1. Team members
  - a. The role of team members (SMEs, supervisors, engineers) is to use their technical expertise to identify the tasks involved in the job.
  - b. You will participate in discussion sessions to identify the tasks involved in the job position being analyzed.
  - c. You will also examine existing task lists, procedures, and other reference materials to help you identify other tasks.
  - d. You will learn more about these techniques in the next lesson.
2. As Facilitator, my role is to:
  - a. Teach lessons that give you the background information you need to succeed when working as a team to develop the task list.

SHOW: TTJA  
INTRODUCTION-0-3,  
Role of Team Members

ASK: Who in here is  
an SME, supervisor,  
or engineer?

SHOW: TTJA  
INTRODUCTION-0-4,  
Role of Facilitator

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

Page 14 of 20

## Discussion Points

## Instructor / Trainee Activity

- b. I will guide you through each TTJA step.
- c. I will use my expertise in job analysis and TTJA to facilitate the seminar, but I will not provide technical input for the task list.
- d. You are the technical experts...I am the process expert.

## 3. Observers

- a. Training staff who want to learn how to conduct TTJA will participate in the lessons.
- b. However, when the actual TTJA process begins, the observers will move to the back of the room.

SHOW: TTJA

INTRODUCTION-0-5,

Role of Observers

ASK: Who in here are observers?

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

Page 15 of 20

## Discussion Points

## Instructor / Trainee Activity

- c. For the most part, they will silently observe the workshop, but they will have an opportunity to help facilitate TTJA Steps 4 and 6 (described in the next lesson). However, they should NOT attempt to influence the technical decisions of the team.

This will give the trainers practice facilitating the TTJA process. We should all support their efforts and provide constructive, non-threatening comments to help them become excellent facilitators for future seminars.

- d. The person who will be responsible for developing the subsequent training program should take careful notes throughout the TTJA process. Excellent training-related discussions occur during the process, and good notes will help the developer later.

ASK: Who will be responsible for developing the training materials for this job position?

(20 min into lesson)

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

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## Discussion Points

## Instructor / Trainee Activity

## III. ICEBREAKER

1. Please introduce yourself to the rest of the group. Your introduction should include:
  - your name
  - where you work
  - your primary job
2. Start the class in the introduction process by having the individual on the left begin.

HAVE team members and observers introduce themselves (1 min each x 10 people = 10 min)

(30 min into lesson)

## IV. HOUSEKEEPING

## A. Starting, ending, lunch time

The seminar is scheduled for 3 days, but if we get through all TTJA steps in less time, we may end early.

ASK: What is the best time to start each morning?

ASK: What is the best time to take lunch?

ASK: Do you want 1 hour or 1/2 hour for lunch?

ASK: What is the best time to end each afternoon?

REFER participants to Workbook p. 7

ESTABLISH times, but allow for full work days

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

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## Discussion Points

## Instructor / Trainee Activity

## B. Breaks

1. As a general rule, we will provide a 10-min. break every 50 minutes.
2. This may vary depending on lesson length, but you will not have to work more than 1-1/2 hours without a break.

## C. Other

1. Refreshments
  - a. coffee and vending machines
  - b. everyone bring in healthful refreshments such as fruit, crackers, and juice
2. Restrooms
3. Parking policy
4. No smoking policy

If seminar is being held away from participants' job site, EXPLAIN location and other information

(35 min into lesson)

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

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## Discussion Points

## Instructor / Trainee Activity

## V. EXPECTATIONS

## A. Attendance

1. People who are late or are part-timers will miss some of the group discussions, which may seriously disrupt the proceedings.

Therefore:

- a. You must be present and participate in all portions of the seminar
  - b. You must be on time for all sessions
2. You will receive a DOE completion certificate for your full participation in this seminar.
  3. Please sign the attendance roster as you would like your name to appear on the certificate.
    - a. We will keep a copy of this form for our records.

SHOW: TTJA

INTRODUCTION-0-6,  
Expectations

NOTE TO INSTRUCTOR:  
Item 2 is only valid  
when the seminar is  
delivered by TCAP

DISTRIBUTE: TTJA  
INTRODUCTION-HD-1,  
Attendance Roster

## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

Page 19 of 20

## Discussion Points

## Instructor / Trainee Activity

- b. This form will also serve as your facility's auditable documentation of your participation in developing the task list.

## B. Seminar Evaluation Form

1. Your input on the seminar evaluation form will provide us with feedback on the effectiveness of this seminar and of my performance as the instructor/facilitator.
2. Please complete the Evaluation Form at the end of the workshop as the directions state.
3. I will collect the Evaluation Form at the end of the seminar.
4. You DO NOT have to put your name on the form.

DISTRIBUTE: TTJA  
INTRODUCTION-HD-2,  
Seminar Evaluation  
Form to everyone

DISTRIBUTE: TTJA  
INTRODUCTION-HD-3,  
Evaluation Form to  
Coordinator and  
Facilitators



## INSTRUCTOR PREPARATION PAGE

Lesson: Introduction

Page 20 of 20

Discussion Points

Instructor / Trainee Activity

## C. Other

1. Please feel free to ask questions or make comments at any time during the seminar.
2. My goal is to help you succeed in developing a usable task list using a cost effective, efficient, and enjoyable method--Table-Top Job Analysis.

ASK if there are any questions regarding what they can expect during the seminar, what is expected of them, or the seminar purpose

(40 min into lesson)

COLLECT Attendance Roster and keep a copy for TCAP records

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Overview of TTJA

Page 1 of 30

COURSE TITLE: 5480.20 Training Seminar Series: Table-Top Job Analysis

LESSON TITLE: Overview of Table-Top Job Analysis

TIME REQUIRED: 2 hours 25 minutes

- REFERENCES:
1. Norton, Robert E., DACUM Handbook, The National Center for Research in Vocational Education, Ohio State University, 1985.
  2. U.S. Department of Energy, Training Accreditation Program, TAP Manuals 1-3.
  3. U.S. Department of Energy, DOE Orders 5480.18A/5480.20.
  4. DOE TCAP Course, Management and Oversight of PBT Programs, Lesson "Analysis Phase," 1992.
  5. DOE TCAP Course, Instructional Analysis and Design, Lesson 1 "Introduction to Analysis and Design," 1991.
  6. DOE Guide to Good Practices, "Table-Top Job Analysis," 1994.
  7. DOE Standard: A Graded Systematic Approach to Training, Draft, March 1993.

OBJECTIVES: Terminal: Given a job position, participants will IDENTIFY duty areas and WRITE task statements that meet the stated criteria.

Enabling:

- OVERVIEW.1 - Describe how analysis products are used in each PBT phase
- OVERVIEW.2 - Define and differentiate between the following terms: job, duty area, and task
- OVERVIEW.3 - List each step involved in TTJA
- OVERVIEW.4 - Differentiate between well-written and poorly-written task statements using the criteria for tasks and task statements

INSTRUCTIONAL: 50 sheets 8-1/2"x11" white typing paper  
 AIDS: 50 sheets 8-1/2"x11" yellow typing paper  
 1 1" x 2" post-it note pad (unlined)  
 1 box push pins  
 1 roll tape  
 VHS VCR with monitor  
 overhead projector and screen

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Overview of TTJA

Page 2 of 30

transparency pens  
 flipchart with pad  
 flipchart markers  
 "finger"  
 page for "revelation technique" near overhead projector

PARTICIPANT  
 PREPARATION:

None required.

PRESENTATION  
 METHOD:

Lecture, group discussion, exercise

EVALUATION  
 METHOD:

Participation in class discussion, completion of exercise,  
 participation during TTJA workshop

NOTES TO  
 INSTRUCTOR:

Following an overview of PBT, this lesson introduces participants to the common terms, processes, and products of Table-Top Job Analysis. The intent is to provide them with enough information to function well during the TTJA workshop, during which they must identify the duty areas and tasks involved in the job being analyzed.

PREPARE for this lesson by obtaining procedures, a job description, and other available information that pertains to the job that will be analyzed for the seminar. IT IS CRUCIAL that the Facilitator review these materials to develop examples as indicated throughout this lesson.

Read TTJA-Overview-R-2 prior to the lesson to familiarize yourself with the potential different levels of tasks, their advantages, and their disadvantages.

To complete all lessons before lunch, this lesson has only 1 break at midpoint (which should suffice).

The team members and observers should all participate as trainees during this lesson.

POST TTJA OVERVIEW-P-1, Terminal Objective (take down after lesson)

POST TTJA OVERVIEW-P-2, Overview (take down after lesson)

POST TTJA OVERVIEW-P-3, "Big Picture" and leave displayed throughout seminar

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Overview of TTJA

Page 3 of 30

POST TTJA OVERVIEW-P-4, TTJA Steps, and Leave displayed throughout seminar

POST TTJA OVERVIEW-P-5, Criteria for Tasks (cover until needed), and Leave displayed throughout remainder of seminar

POST TTJA OVERVIEW-P-6, Criteria for Task Statements (cover until needed), and Leave displayed throughout remainder of seminar

POST your hand-made posters of job-specific tasks to illustrate criteria for tasks, criteria for well-written task statements, and "levels" of tasks; cover until needed in lesson (take down after lesson)

Posters OVERVIEW-P-7 through P-10, Training Boxes, will NOT actually be used during this lesson. Rather, they will be used during Step 6 of the actual workshop.

SET UP video equipment and ensure video (OVERVIEW-V-1) is re-wound and ready

Have transparencies OVERVIEW-0-1 through 0-5 ready

**SKELETAL OUTLINE** (Note: The skeletal outline is NOT meant to replace the lesson plan. Rather, it is to serve as an aid to the instructor when preparing to teach this lesson so the instructor may easily see the overall structure and flow of this lesson.)

### I. INTRODUCTION (5 min.)

### II. PERFORMANCE-BASED TRAINING (10 min.)

OVERVIEW.1 - Describe how analysis products are used in each PBT phase

- A. Overview of PBT (video)
- B. Big Picture

### III. TERMS (10 min.)

OVERVIEW.2 - Define and differentiate between the following terms: job, duty area, and task

- A. Job
- B. Duty area
- C. Task

Exercise (10 min): differentiate between terms

### IV. TABLE TOP JOB ANALYSIS

OVERVIEW.3 - List each step involved in TTJA

OVERVIEW.4 - Differentiate between well-written and poorly-written task statements using the criteria for tasks and task statements

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Overview of TTJA

Page 4 of 30

A. Orient team to TTJA (1 min.)

B. Review job (4 min.)

C. Identify duty areas

Exercise (10 min): Identify duty areas for a nurse

D. Identify tasks (5 min.)

1. Criteria for tasks

2. Criteria for well written task statements

BUILD-IN AND USE  
JOB-SPECIFIC EXAMPLES

Exercise: (20 min): Differentiate between good and bad task statements

(10 min. break)

3. Concept of task levels (10 min.)

- Analysis can get too detailed
- Elements contain knowledge, skills, and abilities
- Pick appropriate level
- General guidelines on numbers of tasks
- Key point

BUILD-IN AND USE  
JOB-SPECIFIC EXAMPLES

Exercise: (20 min): Differentiate between task "levels"

Exercise: (15 min): Identify tasks for nurse position

E. Sequence tasks and duty areas

Exercise: (5 min): Sequence the "nurse" tasks

F. Select tasks for training (5 min.)

V. SUMMARY (5 min.)

**INSTRUCTOR PREPARATION PAGE**

Lesson Title: Overview of TTJA

Page 5 of 30

Discussion Points

Instructor / Trainee Activity

**I. INTRODUCTION****A. Preliminaries**

1. Instructor's name

ENSURE name visible

2. Participant materials

REFER to "Overview"  
tab

3. Participant comfort

ELIMINATE  
distractions**B. Motivator**

1. For those of you unfamiliar with job analysis, this lesson will provide background information necessary to be successful during the actual conduct of Table-Top Job Analysis.

ASK: How many of you  
are familiar with job  
analysis?

2. For those of you familiar with job analysis, this lesson will provide refresher information and an opportunity to apply your experience when determining tasks associated with a job.

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Overview of TTJA

Page 6 of 30

## Discussion Points

## Instructor / Trainee Activity

3. This seminar eliminates the "horrors" of job analysis by using an <u>efficient</u> , <u>pleasant</u> process that results in a <u>usable</u> task list.	ASK: Have you heard or experienced any horror stories about job analysis? (Relate a story)
C. Lesson Title and Terminal Objective	REFER to TTJA OVERVIEW-P-1, Terminal Objective
D. Enabling Objectives	SHOW: TTJA OVERVIEW- O-1, Enabling Objectives
E. Overview	
1. Performance-Based Training	REFER to TTJA
2. Terms	OVERVIEW-P-2,
3. Table-Top Job Analysis	Overview
- Steps	
- Task Criteria	
	(5 min into lesson)

## II. PERFORMANCE-BASED TRAINING

E.O. 1

## A. Overview of PBT

## 1. Introduce Video

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Overview of TTJA

Page 7 of 30

## Discussion Points

## Instructor / Trainee Activity

- a. To understand the big picture in terms of how your contributions during this seminar will be used as the basis for a training program, you must understand a little about Performance-Based Training (PBT).
- b. This 8-minute video will provide a quick overview of the PBT process.
2. As you watch the video, complete Workbook p. 5. We will discuss the answers after the video is finished.
3. Turn on video, darken the room as needed.
4. When the video is over, raise the lights and ask for comments, questions, or concerns regarding the PBT overview.
5. Make sure they have filled in Workbook p. 5 with the words "analysis, design, development, implementation, and evaluation."
- B. Big Picture of How the TTJA Products Feed into Other PBT Phases
  1. The product of this TTJA seminar will be a valid task list.

SHOW: TTJA OVERVIEW-V-1, PBT Video.

REFER to TTJA OVERVIEW-P-3, Big Picture



## INSTRUCTOR PREPARATION PAGE

Lesson Title: Overview of TTJA

Page 8 of 30

## Discussion Points

## Instructor / Trainee Activity

2. The task list will serve as input into the "Design" phase of PBT (which we do in a follow-on seminar), where the training program structure is determined (training sessions, settings, and testing requirements) and where the learning objectives and training content are determined.

3. This provides input to the "Development" phase where lesson plans and tests are written based on the learning objectives and content.

Transition: The success and effectiveness of the entire PBT training program hinges on the quality of the analysis data.

That is why you have been asked to participate in this seminar--to ensure that we obtain an accurate, complete task list upon which the entire training program will be developed.

REFER to TTJA  
OVERVIEW-P-2,  
Overview, for  
transition

(15 min into lesson)

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Overview of TTJA

Page 9 of 30

## Discussion Points

## Instructor / Trainee Activity

## III. TERMS

- A. A job is all the major activities assigned to one individual.

Example job - Maintenance Mechanic

A job can be divided into functional units called duty areas.

- B. A Duty Area is a distinct major activity involved in performance of a job.

Example duty areas for a maintenance mechanic - Pumps and Fans

E.O. 2

SHOW: TTJA OVERVIEW-0-2, Terms  
USE revelation, showing "Job"

HAVE participants fill in the first block on Workbook p. 6 with the word "job"

ASK: What would be some other examples of a job?

Reveal DUTY AREAS

ASK: What would be examples of other duty areas?

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Overview of TTJA

Page 10 of 30

## Discussion Points

## Instructor / Trainee Activity

1. Duty areas serve as a convenient method for grouping similar tasks.
2. Some job positions lend themselves to duty area groupings based on systems, while others may work better based on components, procedures, or location. Still others may require a combination.
3. The key is to find a logical way to sub-divide the job that makes most sense for that job.

A duty area consists of a collection of related tasks.

- C. A Task is a measurable, well-defined, trainable unit of work, with an identifiable beginning and end.

Example Tasks for "Pump" duty area:

- Repair acid pumps
- Repair make-up pump

REFER participants to Workbook p. 7 and EXPLAIN the example ways to group duty areas

Reveal TASKS

NOTE TO INSTRUCTOR:  
Do NOT elaborate on what a task

is... this is done later in this lesson

ASK: What would be some other tasks?

## INSTRUCTOR PREPARATION PAGE

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## Discussion Points

## Instructor / Trainee Activity

In summary, your entire job can be divided into convenient duty areas which will then be further sub-divided into related tasks.

The end product of job analysis is a valid task list--a list of all the tasks performed in a specific job position, validated and signed by management.

SHOW: TTJA  
OVERVIEW-0-3,  
Graphic  
Representation  
REFER participants  
to the "Workshop"  
section of their  
manual to quickly  
examine some task  
lists generated via  
this TTJA process

The INTENT is to let  
them see different  
ways to group duty  
areas and to see  
what task statements  
look like.

(25 min into lesson)

## Exercise:

1. Explain that the purpose of this exercise is to give participants a chance to differentiate between the various terms used in TTJA.
2. Have participants turn to Workbook p. 8.

## INSTRUCTOR PREPARATION PAGE

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## Discussion Points

## Instructor / Trainee Activity

3. Working individually, identify whether each statement reflects a job, a duty area, or a task.

5 min.

4. State the "expert" answers and discuss any comments or discrepancies. Ensure that the terms are clearly understood.

5 min.

1. duty area
2. job
3. task
4. duty area
5. task
6. job
7. duty area
8. task
9. job
10. task
11. task
12. job

Now that you have an understanding of the terms, you can better understand the TTJA process.

REFER to TTJA  
OVERVIEW-P-2,  
Overview, for  
transition

(35 min into lesson)

## INSTRUCTOR PREPARATION PAGE

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Discussion Points

Instructor / Trainee Activity

## IV. TABLE-TOP JOB ANALYSIS

E. O. 3

REFER to TTJA  
OVERVIEW-P-4, TTJA  
Steps (place the  
"finger" on each  
step as each step is  
discussed)

STATE that as we  
briefly cover each  
step we will work  
through an example  
job.

## A. Step 1 - Orient the team

PLACE finger on  
Step 1

The purpose of orienting the team is to provide an introduction to the TTJA process, to explain the team members' role in it, and to provide practice using the terms/concepts before having to apply them during the real TTJA process.

EXPLAIN the purpose  
of this lesson is  
TTJA Step 1--to  
orient the team to  
TTJA

## INSTRUCTOR PREPARATION PAGE

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## Discussion Points

## Instructor / Trainee Activity

## B. Step 2 - Review the job

MOVE FINGER to  
Step 2

The purpose of this step is to explain the boundaries of the job being analyzed, clarifying job titles and specializations that will be included or excluded from the analysis.

## Exercise:

1. STATE: As an example, let's work through the process of analyzing a "nurse" job position.
2. ASK: What clarification of job titles or specializations would we need to consider? (LPN, RN, etc.)
3. ASK: What would be some additional "boundaries" that would impact what a nurse does? (whether employed at a large hospital, a small doctor's office, home care, etc.)
4. STATE: Let's use "Registered Nurse in a large hospital" as the example throughout this lesson.

## INSTRUCTOR PREPARATION PAGE

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## Discussion Points

## Instructor / Trainee Activity

5. WRITE the job title "Registered Nurse" horizontally on a sheet of white 8-1/2" x 11" paper and post at the top, center of the wall.

(40 min into lesson)

## C. Step 3 - Identify the duty areas

MOVE FINGER to Step 3

In this step you will identify the duty areas involved in the job.

ASK: Does someone remember what we mean by duty area? (A convenient way of subdividing the job)

ASK: What were some ways to group duty areas? (components, systems, procedures, location, whatever)

## EXERCISE:

DISTRIBUTE yellow paper

1. Divide the class into groups of 2-4 and distribute yellow sheets of 8-1/2" x 11" paper to each group.
2. Explain that the purpose of this exercise is to give participants practice in determining duty areas.



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## Discussion Points

## Instructor / Trainee Activity

3. REMIND people NOT to confuse duty areas with tasks

5 min.

4. Ask the groups to spend 5 min. to identify duty areas associated with the Nurse job position defined previously and document each duty area on a separate sheet of yellow 8 1/2 x 11" paper.

5. Have each group post their duty areas on the wall.

5 min.

6. Have the class as a whole come to consensus on what the duty areas are and leave these on the wall. (Tactfully take down the others)

INSTRUCTOR: If needed, refer to Overview-R-1 for example "Nurse" duty areas (note: these should NOT be considered the "right" answers)

7. EXPLAIN: This process is similar to what you will do this week.

(50 min into lesson)

E.O. 4

- D. Step 4 - Identify tasks

MOVE FINGER to  
Step 4

This is when you will determine what tasks are performed within each duty area. This step will take the most time during this seminar.

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## Discussion Points

## Instructor / Trainee Activity

In order to develop a good task list, it is important that you clearly understand what constitutes a task. We will discuss several concepts to help you get a clear understanding of a task.

## 1. Criteria for Tasks

REFER participants to Workbook p. 10.

REFER to TTJA OVERVIEW-P-5, What is a Task?

INSTRUCTOR: Prior to this lesson, write some example task statements from the job-specific procedures to illustrate the "criteria for tasks;" write some statements that meet the criteria and write some that do not meet the criteria.

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## Discussion Points

## Instructor / Trainee Activity

<ul style="list-style-type: none"> <li>a. Is a trainable chunk of work</li> <li>b. Has identifiable beginning and end</li> <li>c. Involves several elements</li> <li>d. Results in an identifiable product, service, or decision</li> <li>e. Can be performed over a short period of time</li> <li>f. Can be performed independent of other work</li> <li>g. Can be observed and measured</li> </ul>	<p>AS YOU state each criteria, point to one of your examples and ASK: Does this example meet this criteria?</p>
<p>2. Criteria for a Well-Written Task Statement</p> <p>In job analysis, we list each task in the form of a task statement. A <u>well-written</u> task statement has the following characteristics:</p> <ul style="list-style-type: none"> <li>a. Contains an action verb and object of the action</li> <li>b. Clearly reflects observable worker performance</li> </ul>	<p>DO THE SAME for "criteria for a well-written task statement"</p> <p>REFER to TTJA OVERVIEW-P-6, What Constitutes a Well-Written Task Statement?</p> <p>REFER participants to TTJA OVERVIEW-H-1, List of Acceptable Action Verbs</p>

**INSTRUCTOR PREPARATION PAGE**

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Discussion PointsInstructor / Trainee Activity

- c. May contain one or more relevant qualifiers, but omits unnecessary qualifiers such as effectively, efficiently, correctly, accurately
- d. Is explicit, precise, and stands alone
- e. Avoids reference to knowledge, skills, attitudes, or abilities that merely support task performance
- f. Avoids references to tools or equipment that merely support task performance. The use of tools in and of themselves is not a task, but a means of performing the task.
- g. Reflects terminology used on the job
- h. Avoids use of double verbs such as "remove and repair." Use the more inclusive of the two, which is "repair."
- i. Should contain as few words as possible (usually a maximum of eight) while being completely descriptive. Often, two or three words are sufficient.

(55 min into lesson)

## INSTRUCTOR PREPARATION PAGE

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## Discussion Points

## Instructor / Trainee Activity

## Exercise:

1. Explain that the purpose of this exercise is to give participants practice differentiating between well-written and poorly-written task statements.

2. Have participants turn to Workbook p. 11.

10 min.

3. Divide the class into groups of two or three (depending on number of team members and observers).

4. Have each group work together to identify whether each statement:
  - a. Is a task (if not, why?)
  - b. Is a well-written task statement (if not, why?)

10 min.

5. State the "expert" answers and discuss discrepancies:

- (1) Yes, it's a task. Yes, it's well-written.
- (2) Yes, it's a task. Yes, it's well-written but could be better if it said "Test natural gas piping."
- (3) No, it's not a task. It looks more like a topic. There is no action verb, no beginning/ending, no product.

## INSTRUCTOR PREPARATION PAGE

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## Discussion Points

## Instructor / Trainee Activity

- (4) Yes, it's a task. No, it's not well-written (remove unnecessary word "correctly")
- (5) No, it's not a task, just like #3.
- (6) Unclear as to whether this is a task. If "steam" is an action verb, it may be a task. But if it is, it's a poorly-written task statement because it is not explicit and clear.
- (7) If the steps involved in "removing and installing" a boiler are exactly the same except in reverse order, then it is acceptable to have both action verbs in one task statement. If not, it should be written as two separate task statements. It could be better written (reduce words: "Remove and install" rather than "removal and installation of").

(1 hr 15 min into lesson)

TAKE 10 MIN BREAK

(1 hr 25 min into lesson)

## INSTRUCTOR PREPARATION PAGE

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## Discussion Points

## Instructor / Trainee Activity

## 3. Concept of Task "Levels"

A common problem when performing job analysis is that the analysis becomes too detailed (too many tasks are identified, which becomes unmanageable).

- a. This is generally the result of people identifying the elements of a task or the knowledge and skills required to perform the task, rather than the task itself.

- b. A task contains several elements. An element is a specific step in the performance of a task.

Each task element contains knowledge, skills, and abilities.

- a. During task analysis (which is beyond the scope of this seminar), the knowledge, skills and abilities needed to perform each element are identified.

SHOW: TTJA

OVERVIEW-0-4, Task Analysis

EXPLAIN:

Understanding this will help you differentiate between tasks and their elements, knowledge, skills, and abilities so when you identify tasks you will keep from getting too detailed.

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## Discussion Points

## Instructor / Trainee Activity

- b. During job analysis (the purpose of this seminar), we only want to identify the tasks involved in the job.

In traditional job and task analysis, people were not always careful to pick an appropriate "level" at which to write tasks.

- a. People would often pick too "low" a level (or too detailed, possibly listing elements rather than tasks)

Thus, they would end up with task lists that had 300-1000 tasks (and elements that they called tasks) listed on it, which became unmanageable.

- b. On the other hand, we don't want to write tasks at too high (or too broad) a level just for the sake of reducing the number of tasks on the task list. We certainly want to ensure that all vital tasks are listed.

SHOW: TTJA  
OVERVIEW-0-5, For  
This Week

REFER participants  
to Workbook p. 12

INSTRUCTOR: Prior  
to this lesson,  
prepare some example  
task statements for  
the job being  
analyzed that  
illustrate an  
"appropriate" task  
level; show one that  
is written at too  
high a level (too  
broad), one that  
drops down one  
notch, one that is  
at too low (too  
narrow, like an  
element rather than  
a task) a level,  
etc. REFER to TTJA



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## Discussion Points

## Instructor / Trainee Activity

Concentrating on an appropriate "level," a typical job within DOE will have 5-12 duty areas. For each duty area, there will typically be 6-20 tasks (48-240 tasks total).

NOTE: This is a general guideline and should not be taken as an absolute. You do not have to meet either the minimum or the maximum number of duty areas or tasks stated here. These numbers are intended to be guidelines to determine if the level of analysis is on target.

The "appropriate level" at which to write tasks and the number of tasks identified will depend on the complexity of the job and complexity of the facility.

The key point is that when performing job analysis, we must identify all the tasks required for competent job performance, but it must be done at a level that:

Overview-R-2 for an example

POINT OUT: It is the Facilitator's role to help keep the analysis at the appropriate level of detail.

REFER to Workbook p. 13 for examples to illustrate this point

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## Discussion Points

## Instructor / Trainee Activity

- a. is useful when designing a training program,
- b. is at an appropriate level of detail so the number of tasks is manageable, and
- c. is compatible with the job being analyzed.

(1 hr 35 min into lesson)

## Exercise:

1. The purpose of this exercise is to have participants determine if sample task statements are written at an appropriate "level."
2. Refer participants to Workbook p. 14.
3. Divide the class into groups of two or three (depending on number of participants).
4. Have each group work together to determine:
  - a. Based on the scope of that job, is the task written at an appropriate level?
  - b. If not, is the level too high or too low?
5. After 10 min., read the "expert answers" and discuss any comments or discrepancies.

10 min.

10 min.

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## Discussion Points

## Instructor / Trainee Activity

- (1) Too low: if listed every type of cookie, every type of cake, every type of doughnut, etc., plus maintaining supplies and all the other activities, the task list would be longer than necessary, considering hazards and complexity associated with the job. "Make cookies" might be more appropriate.
- (2) Appropriate level
- (3) Appropriate level
- (4) Too low: An element of "change tires" or other task(s)
- (5) Too high
- (6) Too high: Should be "Perform personnel beta/gamma radiation survey," "Perform workplace beta/gamma radiation survey," "Perform neutron survey," etc.
- (7) Appropriate level

(1 hr 55 min into lesson)

## Exercise:

1. Again divide the class into groups of 2-3.
2. The purpose of this exercise is to provide practice determining tasks for a job.
3. Distribute numerous sheets of white 8-1/2" x 11" paper to each group.

DISTRIBUTE white paper

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## Discussion Points

## Instructor / Trainee Activity

4. Using ONE duty area for the "Nurse" job posted on the wall, have each group determine tasks for that duty area. (Have all groups identify tasks for the SAME duty area so you can compare task "levels.")  
Have groups write each task on a SEPARATE piece of white 8-1/2" x 11" paper and post their tasks on the wall. (Sequence is not important yet.)

10 min

IF NEEDED, REFER to Overview-R-1 for example Nurse tasks (but these should NOT be considered the "correct" answers)

5. Compare the results, helping the entire class come to consensus on the most appropriate "level." Leave the pages on the wall that are written at an appropriate level, but tactfully remove all others.

5 min

(2 hr 10 min into lesson)

Step 5 - Sequence tasks and duty areas

MOVE FINGER to Step 5

The team will sequence the tasks within each duty area and then sequence the duty areas as appropriate. In the real seminar, this step will allow the team to review the entire task list, in sequential order, which may help the team determine if any tasks need to be added to or deleted from the list.

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## Discussion Points

## Instructor / Trainee Activity

Some sequencing approaches include:

1. Chronological order
2. The order in which the worker does the tasks on the job
3. Simple to complex
4. Other
5. Sometimes arbitrary

## Exercise:

1. The purpose of this whole-group exercise is to allow the class to sequence tasks.
2. Refer to the tasks still posted on the wall from the previous exercise. ASK the class as a whole what the basis for selecting the tasks should be (chronological, etc.)
3. ASK the class as a whole what the sequence of tasks should be.
4. Write the number (1, 2, 3, etc.) on a 1x2" post-it note pad and attach it to the task page as the class dictates the sequence.

5 min.

INSTRUCTOR: Refer to the *Facilitator Guide* if you need additional information on how to do this  
(2 hr 15 min into lesson)

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## Discussion Points

## Instructor / Trainee Activity

## F. Step 6 - Select Tasks for Training

A valid task list provides the foundation for the content of a training program and ensures that training prepares individuals to work competently. However, not all tasks require extensive, formal training.

The purpose of selecting tasks for training is to determine WHICH tasks from the task list REALLY need to be included in the formal training program.

During this step, each task will be evaluated by the team according to set criteria. The team will come to a consensus decision for the box in which the task should reside.

This will be explained further during the actual workshop.

MOVE FINGER to Step 6

REFER to Workbook p. 15

REFER participants to  
Workbook p. 16

(2 hr 20 min into  
lesson)

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Discussion Points

Instructor / Trainee Activity

## VI. SUMMARY AND REVIEW

## A. Review Enabling Objectives

1. Table-Top Job Analysis is one method used to develop a list of tasks for a job position.
2. The content of the training program will be based on the tasks.

## B. Terminal Objective

ASK: What is the end product of Table-Top Job Analysis?

ASK: How will the task list be used for the training program?

REFER to TTJA OVERVIEW-P-1, Terminal Objective

(2 hr 25 min)

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Maximizing Team Effectiveness

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COURSE TITLE: 5480.20 Training Seminar Series: Table-Top Job Analysis

LESSON TITLE: Maximizing Team Effectiveness

TIME REQUIRED: 35 minutes

- REFERENCES:
1. International Board of Standards for Training Performance and Instruction, *Training Manager Competencies: The Standards*, "Nominal Group Technique."
  2. Effective Meeting Skills, Marion E. Haynes, Crisp Publications, Inc., Los Altos, California, 1988.
  3. Zenger-Miller, Team Leadership, Helping Your Team Reach Consensus, 1992.

OBJECTIVES: Terminal: Given the guidelines for effective Nominal Group Technique and Consensus Decision-Making, team members will APPLY the guidelines while contributing ideas during the Table Top Job Analysis workshop.

Enabling:

- Team.1 - Define the terms "Nominal Group Technique" and "Consensus Decision-Making"
- Team.2 - Describe the steps involved in Nominal Group Technique and Consensus Decision-Making
- Team.3 - List the guidelines for applying the Nominal Group Technique and Consensus Decision-Making processes

## INSTRUCTIONAL:

AIDS: Flipchart stand and paper, flipchart markers.

## PARTICIPANT

PREPARATION: None required.

## PRESENTATION

METHOD: Lecture, NGT/CDM exercise

## EVALUATION

METHOD: Participation in TTJA workshop NGT/CDM activities in accordance with the guidelines provided.



## INSTRUCTOR PREPARATION PAGE

Lesson Title: Maximizing Team Effectiveness

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### NOTES TO

#### INSTRUCTOR:

This lesson introduces participants to the terms and processes of Nominal Group Technique (NGT) and Consensus Decision-Making (CDM). The intent is to provide them with enough information to function well during the TTJA workshop, during which they must apply the guidelines as they develop a task list and select tasks for training.

Refer to TTJA TEAM-R-1 for additional information on NGT and to the TTJA *Facilitator Guide* to see how it will be used in the actual seminar.

All team members and observers should participate as trainees during this lesson.

POST TTJA TEAM-P-1, Terminal Objective (take down after lesson)

POST TTJA TEAM-P-2, Overview (take down after lesson)

POST TTJA TEAM-P-3, Guidelines for NGT/CDM (cover until needed), and leave displayed throughout remainder of seminar.

Have transparencies ready (TTJA TEAM-O-1 through O-8)

**SKELETAL OUTLINE** (Note: The skeletal outline is NOT meant to replace the lesson plan. Rather, it is to serve as an aid to the instructor when preparing to teach this lesson so the instructor may easily see the overall structure and flow of this lesson.)

#### I. INTRODUCTION (05 min.)

#### II. DEFINITIONS (02 min.)

- A. Nominal Group Technique
- B. Consensus Decision-Making

#### III. STEPS IN THE PROCESS

- A. Steps (03 min.)
  - 1. Silently generate/write ideas
  - 2. State ideas in round robin
  - 3. Discuss/clari fy ideas
  - 4. Combine ideas as appropriate
- B. Exercise (15 min.)

#### IV. GUIDELINES FOR APPLYING PROCESS (05 min.)

- A. NGT

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Maximizing Team Effectiveness

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- 1. Apply applicable criteria
  - 2. Add to your list
- B. CDM
  - 1. Help others formulate their statements
  - 2. Present ideas lucidly and logically
  - 3. Empower yourselves

V. SUMMARY (02 min.)

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Maximizing Team Effectiveness

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## Discussion Points

## Instructor / Trainee Activity

## I. INTRODUCTION

## A. Preliminaries

1. Instructor's name
2. Participant materials
3. Participant comfort

ENSURE instructor's name is visible

REFER participants to "Team" section

ELIMINATE distractions

## B. Motivator

1. One of the assumptions of TTJA is that a team of SMEs can be used to analyze training requirements better than a single individual or as well as a group of individuals surveyed separately.
2. However, gathering a group of competent SMEs has its own problems:
  - Some people dominate
  - Ideas or other contributions are lost or dismissed

ASK: What problems might occur when a group of highly competent people meet to discuss/resolve a problem?

## INSTRUCTOR PREPARATION PAGE

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## Discussion Points

## Instructor / Trainee Activity

- Some people never participate
- Non-productive environment for any creative process

The result may be an ineffective, low-quality, time-consuming meeting.

3. Our goal during this seminar is to use a combination of idea-gathering and decision-making processes that eliminate those problems.

We need to reduce the social interaction and communication problems that interfere with good decisions and effective use of time, and at the same time make the best possible use of the talent available.

4. The first process we will use is called Nominal Group Technique.
5. The second process we will employ is Consensus Decision-Making.

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Maximizing Team Effectiveness

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## Discussion Points

## Instructor / Trainee Activity

6. By applying both of these processes, your contributions during this seminar will lead to developing a usable task list in the most efficient manner.

C. Lesson Title and Terminal Objective

REFER to Team-P-1,  
Terminal Objective

D. Enabling Objectives

SHOW: TTJA Team-0-1, Enabling  
Objectives

E. Overview

REFER to Team-P-2,  
Overview

1. Definitions of NGT and CDM
2. Steps in the NGT and CDM Process
3. Guidelines for Applying the NGT and CDM Process

(5 min into lesson)

## II. DEFINITIONS

E. O. 1

A. Nominal Group Technique

SHOW: TTJA Team-0-2, NGT

NGT is a structured group process resulting in the maximum contribution of experienced individuals to a common goal.

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Maximizing Team Effectiveness

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## Discussion Points

## Instructor / Trainee Activity

## B. Consensus Decision-Making

Consensus is a general agreement among several people. It occurs when all team members can support and live with the decision without compromising important needs or values.

In consensus decision-making, complete unanimity is not the goal--it is rarely achieved. But each individual should be able to accept the group's decision on the basis of logic and feasibility.

SHOW: TTJA Team-0-3, CDM

## III. STEPS IN THE PROCESS

E.O. 2

## A. The steps involved in Nominal Group Technique include:

Step 1. Each person silently generates/writes ideas

SHOW: TTJA Team-0-4, Step 1

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Maximizing Team Effectiveness

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## Discussion Points

## Instructor / Trainee Activity

Step 2. All persons state ideas in a round robin

- a. A round robin involves each person taking a turn to state one suggestion from his/her list.
- b. The next person states one suggestion, and so on until all persons have made one suggestion.
- c. Then the first person states a second suggestion from his/her list, etc.
- d. If a task statement has been suggested, the next person should state another suggestion or "pass" to the next person.
- e. This process continues until all team members have had an opportunity to exhaust their list.

SHOW: TTJA Team-0-5, Step 2

## INSTRUCTOR PREPARATION PAGE

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## Discussion Points

## Instructor / Trainee Activity

- B. Then the Consensus Decision-Making process takes over:

Step 3. Discuss/cl arify ideas

SHOW: TTJA Team-0-6, Step 3

Step 4. Combine ideas as appropriate

SHOW: TTJA Team-0-7, Step 4

(10 min into lesson)

## C. EXERCISE

1. Explain the purpose of this exercise is to illustrate how the NGT/CDM process works.
2. Explain that the instructor will ask a question. Each person should work alone, without communicating, to write down as many task statements (answers to the question) as possible, with each statement containing:
  - an action verb
  - a noun (receiver of the action)
  - 4-5 words maximum
3. Start the exercise by ASKING: What do people do in the morning from the time they wake up until they get to work?

REFER participants to Workbook p. 6

SHOW: TTJA Team-0-8, Exercise Directions



## INSTRUCTOR PREPARATION PAGE

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## Discussion Points

## Instructor / Trainee Activity

4. Allow 1 minute of quiet time for participants to write down their task statements.
5. In a round robin style, ask each person to state one of the task statements they wrote. Record their answers on the flipchart.
6. Discuss any tasks that need clarification. Allow the individuals to clarify the statements, if required.
7. Combine statements as appropriate.
8. Discuss the NGT process by asking:
 

ASK: What happened?

ASK: What was different from traditional discussion?

ASK: Why is NGT a good idea?

In a light-hearted manner, discourage any social activity

Do this quickly without allowing participants to comment on the viability of the task statements

If their lists have not been exhausted after one minute, stop. (Explain that when doing this during TTJA, we would not put time limits on developing or exhausting their lists.)

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Maximizing Team Effectiveness

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## Discussion Points

## Instructor / Trainee Activity

Transition: Now that you have participated in the process, let's briefly discuss how we can effectively apply the process during this seminar.

## IV. GUIDELINES FOR APPLYING PROCESS

## A. Nominal Group Technique

1. When silently generating your lists, apply applicable criteria to the best of your ability. This means:
  - level of task
  - criteria for a task
  - criteria for a well-written task statement
2. During the round robin, if someone else's suggestion stimulates another thought, add it to your list and make sure you state it during one of the subsequent "rounds."

REFER to Overview  
for transition

(25 min into  
lesson)

E.O. 3

REFER to TTJA Team-  
P-3, NGT and CDM  
Guidelines

REFER participants  
to Workbook, p. 7

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Maximizing Team Effectiveness

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## Discussion Points

## Instructor / Trainee Activity

## B. Consensus Decision-Making

During the subsequent discussion to clarify statements or combine items as applicable, be an effective team member by doing the following:

1. Help others formulate their statements. This means:
  - Help write the task at the appropriate level
  - Help begin all task statements with an action verb
  - Help apply applicable criteria
2. Present your ideas as lucidly and logically as possible, but avoid arguing for your position. Listen to the other members' reactions and consider them carefully.
3. Empower yourselves to keep the consensus decision-making process useful. If someone begins dominating, any team member has the right to call "time out" and get the discussion back on track.

EXPLAIN that the noisemakers and toys can be light-hearted tools to help keep discussions on track

## INSTRUCTOR PREPARATION PAGE

Lesson Title: Maximizing Team Effectiveness

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## Discussion Points

## Instructor / Trainee Activity

Remember that for consensus you don't have to have things exactly as you would want; you only have to be able to support the decision. Ask yourself, "Can I live with the decision?"

HAVE participants write this question where they will see it throughout the seminar

(30 min into lesson)

## VI. SUMMARY

## A. Review key points

1. NGT helps reduce the social interaction and communication problems that interfere with good decisions and effective use of time, while gaining maximum contribution of experienced individuals.

ASK: What is the purpose for using Nominal Group Technique?

2. Can I live with the decision?

ASK: What is the key question that consensus decision-making requires?

## B. Review the terminal objective.

REFER to TTJA Team-P-1, Terminal Objective.